

DUPLICATE

# HAWAII MEDICAL JOURNAL

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# HAWAII MEDICAL JOURNAL

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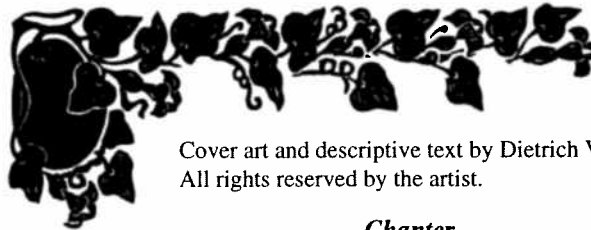
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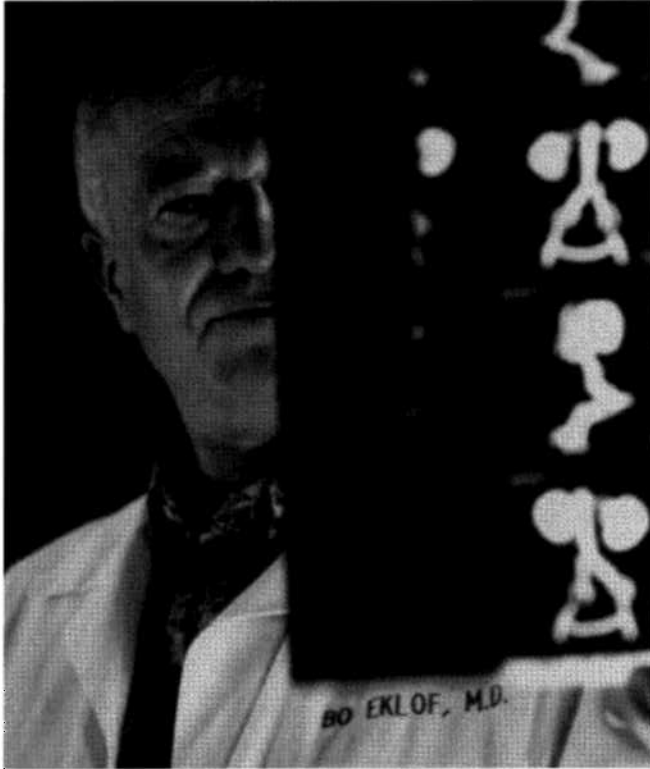


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*Chanter*

Shown here is a chanting woman calling out for a dancer. She is using a gourd drum (*ipu heke*) for accompaniment.

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– Friday Noon Conference –

**All Stings Considered: First-Aid & Medical Treatment of Hawaii's Marine Injuries**

*Craig Thomas, MD & Susan Scott*

January 9, 1998, 12:30 - 1:30 p.m.

Doctors Dining Room

**Learning Objectives –**

**At the conclusion, participants will be able to:**

- Understand the latest first aid and medical treatments of Hawaii's jellyfish stings.
- Recognize and treat ciguatera and scombroid fish poisoning.
- Understand the incidence of drowning in Hawaii.

– Friday Noon Conference –

Luncheon

**Spectrum of Utility of Oral Antifungal Agents:**

**Focus on Efficacy and Safety**

*James Q. Del Rosso, DO*

January 23, 1998, 12:30 - 1:30 p.m.

Doctors Dining Room

**Learning Objectives –**

**At the conclusion, participants will be able to:**

- Differentiate the clinical applications of oral antifungal agents.
- Describe the proper dosage regimens.
- Identify potential side effects and the appropriate patient monitoring.
- Recommendations for oral antifungal agents.

We would like to acknowledge the Educational Grant from JANSSEN Pharmaceuticals.

– Friday Noon Conference –

Luncheon

**Current Trends in Alzheimer's Disease and Dementia**

*Gary W. Steinke, MD*

January 30, 1998, 12:30 - 1:30 p.m.

Doctors Dining Room

**Learning Objectives –**

**At the conclusion, participants will be able to:**

- Gain knowledge about current research as to the theory and treatment of Alzheimer's Disease.
- Understand the genetics of the dementia syndrome.
- Identify conditions that are necessary for the diagnosis of dementia of the Alzheimer's type.

We would like to acknowledge the Educational Grant from Pfizer Labs.

**Please call Fran Smith at 522-4471 for more information.**



## D.A.D.D. Gains Momentum

**Norman Goldstein MD**  
Editor

In this issue, we continue the series of A.A. "Bud" Smyser's Hawaii's World with his column on D.A.D.D. from the Honolulu Star-Bulletin.

The Governor's Blue-Ribbon Panel on Living and Dying with Dignity has been meeting for more than a year. Bud Smyser and I are members, as well as a broad base of community leaders. The Panel has also been conducting public hearings - town hall-type meetings where Hawaii's public has been invited to present written or verbal testimony on D.A.D.D.

While the majority of presenters favor Doctor Assisted Death with Dignity, the Blue Ribbon Panel may not be able to make definite recommendations on D.A.D.D. - similar to the Oregon program.

I strongly urge the Panel to recommend the Governor hold a referendum for Hawaii's voters. Let's hear from all the voters.

## Members of the Governor's Blue-Ribbon Panel on Living & Dying with Dignity

Dr Naleen N. Andrade, Psychiatrist, Queen's Medical Center

Rabbi Stephan Barack, Temple Bet Shalom

Dr Max Botticelli, Retired Professor, University of Hawaii, School of Medicine

Mary Cooke, Community Volunteer

Jeffrey P. Crabtree, Attorney

The Reverend Beth Donaldson, Kapaa United Church of Christ

Sister Roselani Enomoto, CSJ, Director of the Roman Catholic Church Office for Social Ministry, Maui

The Reverence Yoshiaki Fujitani, Retired Bishop, Honpa Hongwanji Temple

Dr Norman Goldstein, Editor, Hawaii Medical Association Journal

Dr Lawrence Heintz, Professor of Humanities, University of Hawaii at Hilo

Dr Brian Issell, Director, Cancer Research Center of Hawaii, University of HI

Hideto Kono, Former Director, State Department of Planning and Economic Development, and Former President, Japan-America Institute of Management Sciences (JAIMS)

Patricia Lee, MSN, RN, CS, Gerontological Nurse Practitioner

Dr Lawrence Miike, Director of the State Department of Health

Stephani Monet, Esq., RN, Director of Education & Practice, Hawaii Nurses' Association

James Pietsch, Attorney, Director of the Elder Law Project, University of HI

A.A. "Bud" Smyser, Contributing Editor and Retired Editorial Page Editor, the Honolulu Star-Bulletin

Judge Betty Vitousek, Retired Judge, Family Court

## The Case of the Month

In case you missed the Editorial in the November 1997 issue of the Journal, we are repeating it again now. It is so important!

Hawaii is in a very unique position geographically and medically

as well. A.A. "Bud" Smyser describes this eloquently in his Hawaii's World commentary published in the November 10, 1997 *Honolulu Star-Bulletin* and reprinted with permission on page 371.

## It's Been Three Great Years

Entering the fourth year as Editor, I recall Harry Arnold Jr., MD saying "The Journal is a great deal of work for me, the many contributors and the staff." Harry was right again! But, because of the gratification received in publishing a peer-reviewed medical journal, everyone is pleased to be involved. We try to publish a variety of manuscripts to interest and educate our 1,800 readers.

Some special issues have become "textbooks"; others have been controversial. Death and Dying (December 1996 and March 1997) has already played a significant role here in Hawaii and in other states dealing with D.A.A.D.—Doctor Assisted Death with Dignity. [See letter from the National Hemlock Society on page 371.]

Our schedule of Special Issues for 1998 and 1999 is currently being finalized. Look for the "Pain" issues I and II in February and April. Clinical Toxicology and Hawaii Poison control are featured in March.

Thanks to our many Peer Reviewers, our Copy Editors: Dr Ann Catts, Dr Drake Will and Dr Al Morris; to our Editorial Board; to our hard-working Staff: Carol Uyeda and Becky Kendro; to our very competent Ad Representative, Michael Roth; and to our readers who have expressed thanks in person and in writing. Finally, a very special thank you to the staff of the Hawaii Medical Library for its many favors, including the preparation of our Index in the December issue.

## Military Presence in Hawaii

The manuscripts in this issue of the Journal demonstrate the past and present role of military medicine in Hawaii. Scott A. Norton, MD, MPH, MSc was a Dermatologist at Tripler and an Assistant Professor of Medicine at our Medical School. He now serves as Chief of Dermatology at the RW Bliss Army Hospital, Fort Huachuca in Arizona. Scott was a very valuable contributing member of the Hawaii Dermatological Society. We miss him.

The excellent historic manuscript by Col. Thomas Cashman about William Gorgas and Yellow Fever was presented, in part, at a meeting of the Hawaii Society for the History of Medicine and Public Health. I first met Tom Cashman as a pediatrician, when I served as Chief of Dermatology at Tripler 30 years ago. Tom has traveled to many military assignments over the years but has returned to Tripler as Colonel in the Department of Preventive Medicine Service. Welcome home, Tom.

The third military manuscript in this issue is the first reported case of HTLV-1 associated Adult T-Cell Leukemia in a Micronesian patient from the Hematology - Oncology Service at Tripler. Mark Cummings, MD and his associates present an excellent first in our series of monthly case reports unique to the Pacific.

Mahalo nui loa to our medical associates in uniform. Hawaii and our country are proud to have you here.



## Presidents Message

### Leonard Howard MD

Your HMA leadership just returned from the interim AMA meeting in Dallas, TX. Our representation consisted of our two Delegates, Dr Cal Kam and Dr Allan Kunimoto, your Alternate Delegates, Dr Fred Holschuh and your President, and your President-Elect Dr Patricia Chinn. Dr Holschuh and I also attended the Organized Medical Staff Section meeting immediately preceding the AMA meeting. The issue on everyone's mind was "Sunbeam-gate." Many resolutions centered on this issue, and several special meetings were held to explain the issue, the corrective actions taken, and the continuing investigation by a special committee of the House of Delegates.

Another item stimulating a great deal of discussion was the American Medical Accreditation Program, or AMAP. This is a physician certification program that is intended to make credential verification for various medical entities easier for the physician. Once the physician has been certified by AMAP, this will represent evidence that can be used in all cases where credential verification is required. Ideally, instead of having to repeatedly fill out one form for each organization, the AMAP accreditation form could be submitted. Unfortunately, the AMA staff presented the program to various states in a somewhat

heavy handed manner, giving the impression that no consideration would be given to states that already had a Credential Verification program in place. In addition there were some problems with communication between AMA staff and various state medical organizations. These problems were presented in several forums and the upshot was that the leaders of the AMAP program got the message from the grassroots, and the approach will be changed. We will be meeting with AMAP leaders in the spring to discuss how Hawaii might adapt the program to our specific needs.

The AMA Division of Representation has identified four priorities for 1997-98:

- Assisting local medical societies in opening a dialogue with health plans as outlined by the Department of Justice/Federal Trade Commission antitrust guidelines.
- Providing medical societies with action plans, including sample letters and contract provisions, to assist physicians in common complaints before health plans and help physicians and medical societies resolve these issues more effectively through various legal, media, and other strategies.
- Through local medical societies, assisting employed physicians seeking to collectively bargain with their employers, including, if requested, assisting in forming a recognized collective bargaining unit.
- Directly assisting individual physicians and group practices by providing consulting services and strategies to enhance physician/patient presentation before plans on issues of critical concern such as policies and practices that interfere with the patient physician relationship and inappropriate application of clinical guidelines.

While we were at the meeting, we met with three CEOs of different State Medical Associations to review our HMSA Participating Provider Agreement. We used the information gained in these meetings to assist us in our discussions with the HMSA. Our new Medical Economics/MCO Committee will be reviewing all the participating provider contracts covering our members, and we will also send these agreements to the AMA office for their review as well.

Each time a physician attends an AMA meeting for the first time, we seem to hear the same comments, i.e. "Now I understand why we need to be associated with the AMA." It was gratifying to hear the same comment from a new council member the other night. I would like to extend an invitation to any HMA member to attend Council meetings. We meet on the first Friday of every other month starting in December (except for February when the Council will meet on the second Friday due to my visit to the Hiroshima Prefecture Medical Society 50th Anniversary meeting) Simply call Angela at HMA and let us know you are coming, so we can add to the meal order. I look forward to seeing many of you at Council meetings this coming year.

## ARE YOU PRACTICING MEDICINE THE WAY YOU WANT TO?

- Do you understand the new HMSA Participating Physician Agreement?
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- Is your group structured properly to avoid malpractice?
- Are your personal assets structured properly to protect against professional liability?
- Do you understand the process of an associate buy-in or merger?
- Are you prepared to competently negotiate with your employer or employee?
- Do you know how to sell or purchase a medical practice?



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# Commentary

## Doctor-Assisted Death with Dignity

By A.A. Smyser

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You haven't yet heard of DADD for Doctor-Assisted Death with Dignity. It hasn't been formed yet. But the editor of Hawaii Medical Journal, Dr Norman Goldstein, may suggest it as an umbrella name for diverse national organizations advocating exactly that. He believes the DADD acronym could bring the movement recognition and success like that achieved by MADD for Mothers Against Drunk Driving.

Goldstein won praise both nationally and locally for devoting the last December and March issues of the Hawaii Medical Journal to doctor-assisted death—probably the only medical journal in America to give it such intense attention. Copies went to medical libraries throughout the U.S.

One local doctor's letter to the editor reminded Goldstein that most of organized medicine is opposed to doctor-assisted suicide yet most of HMJ's articles were in favor. She still thanked him for providing the leadership and devoting the time and effort to publish

the journal. It digs into many other topics, ophthalmology most recently. Two issues on pain control lie ahead.

Copies of the journal's reports, mostly written by physicians, became a part of the information-gathering process for the Governor's Blue Ribbon Panel on Living and Dying with Dignity. Goldstein is a panel member, as am I, also a DADD advocate, but other members have positions in opposition, which Governor Cayetano knew when he appointed us.

One of HMJ's subject areas was the Swiss organization known as EXIT, which helps people to die after they pass intense screening as to suitability. None of its practitioners has been prosecuted.

Goldstein has updated data from EXIT showing it approved fatal potions for 210 people in 1996 yet only 110 used them. He believes that in Hawaii, too, the availability of such assistance could become a security blanket ailing persons would welcome but not use.

HMJ also dealt with the Hippocratic oath, often cited against doctor-assisted death. It is a 2,400-year-old-pledge, Goldstein points out, that if literally followed would prevent modern surgery. Hippocrates swore by Apollo and other Greek gods and goddesses that, among other things, "I will not use the knife." The oath has been modified for today's medical students.

Goldstein thinks the basic caring sense expressed by Hippocrates can be interpreted today to give compassionate release from suffering for our loved ones just as we already offer it for our pets.

He says "slippery slope" concerns about abuse to cause deaths for the convenience of others can be met by strict guidelines on voluntariness that will reassure both patients and doctors.

As a dermatologist he does not deal with dying patients. If he were an internist, he says, he would even now provide help if the patient wanted it, he knew the patient well, and no other relief from suffering was available. This already occurs in Hawaii, he says, but cannot be publicly reported.

Goldstein was recruited into the Hemlock Society by Dr John Spangler, outgoing president of the Hawaii Medical Association. Out of 2,000 physicians in Hawaii, 1,200 are HMA members.

Spangler testified before a hearing of the Governor's Panel on Living and Dying with Dignity that the American Medical Association opposes doctor-assisted death but the American Medical Students Association supports it.

Hemlock is the oldest of an expanding group of national organizations lobbying for doctor-assisted death, the ones Goldstein thinks could be more effective if they united under a DADD banner.



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## Letter to the Editor

**Don Blake, APR**

**Public Relations  
The Hemlock Society USA**

The November issue of Hawaii Medical Journal just reached my desk. Congratulations on your continued fine work as editor.

By the way, I think your idea of adopting D.A.D.D. as a meaningful acronym is a good one. It is easy for the general public to understand and accept, and it takes the harsh edge from the general public image of physician-assisted death.

Thanks for your support as a national board member. Perhaps we'll have the occasion to meet when you are next in Denver or elsewhere for a board function.



## Military Medicine

### Military Unique Curriculum

**Benjamin W. Berg MD, LTC, U.S. Army**

Graduate Medical education in the Military largely mirrors the civilian sector. Educational standards, and program requirements as prescribed by the Accreditation Council for Graduate Medical Education (ACGME) are identical to civilian training programs. The spectrum of programs available in the US Army is broad. There are primary training programs in virtually all specialties, including Family Practice, Internal Medicine, General Surgery, Pediatrics, Psychiatry, Obstetrics and Gynecology, Radiology, and Pathology. Advanced training in subspecialty areas is also available in some fields, where research and clinical fellowships are established. In recent years there has been a decrease in the Military GME programs, as the overall size of the Military is decreased. Army GME takes place largely at "Major Medical Centers" which are located in Honolulu (Tripler), Washington D.C. (Walter Reed), San Antonio (Brooke) and El Paso (William Beaumont) Texas, Tacoma Washington (Madigan), and Augusta Georgia (Eisenhower). The Fitzsimmons Army Medical Center in Denver, Colorado closed its doors about 18 months ago.

Medical students apply for competitive residency training in Military Hospitals from either a Military sponsored civilian Medical School, or from the Uniformed Services University of Health Sciences (USUHS) which is located in Bethesda Maryland. The Majority of applications for Military internships are from Civilian Medical School applicants who have participated in the Health Professions Scholarship Program (HPSP). These candidates have a four year obligation to serve in the Uniformed Service of their choice, after residency training is completed. The program provides

*Continued on Page 386*



## Harry L. Arnold Jr. MD Case of the Month

### HTLV-1 Associated Adult T-Cell Leukemia in a Micronesian Patient: The First Reported Case

**Charles F. Miller MD, Mark D. Cumings MD,  
Francis M. Gress MD, and Benjamin W. Berg MD  
Hematology - Oncology Service  
Department of Medicine  
Tripler Regional Medical Center**

#### Introduction

Adult T-Cell Leukemia/Lymphoma is an aggressive form of lymphoproliferative disease which is specifically caused by infection with human T-cell lymphotropic virus type I (HTLV-I). Infection with this virus is endemic in southwest Japan, the southeastern United States, the Caribbean Islands, and central Africa.<sup>1</sup> More recently, genetically distinct forms of the virus have been identified in Australian aboriginal tribes as well as various isolated populations in Papua New Guinea and the Solomon Islands in Melanesia.<sup>2</sup>

However, evidence of infection with HTLV-I has not been identified in Micronesian populations.<sup>3</sup> This is a report of a case of Adult T-Cell Leukemia in a Marshallese male medically evacuated to Honolulu from the island of Majuro, Republic of the Marshall Islands (RMI), which is in Pacific Micronesia. This case appears to be the first report of a confirmed HTLV-I associated T-Cell Leukemia in a Micronesian patient.

#### Case Report

A 52-year-old Marshallese male was admitted to the hospital in Majuro, RMI, because of generalized abdominal pain with distention, jaundice, nausea, vomiting, subjective fever and chills, loss of appetite, and shortness of breath.

Two weeks prior to admission, symptoms of nausea and vomiting, diffuse abdominal pain, and loss of appetite began. He progressively developed jaundice, increasing abdominal girth, and subjective fever and chills. On examination, he was found to be jaundiced. His abdomen was markedly distended with diffuse tenderness and guarding but no peritoneal signs. Initial laboratory tests are shown in Table 1. He was treated with Metronidazole 500mg PO q8hrs, Gentamycin 60mg IV q8hrs, Rocephin 1 gm IV q12hrs, and Ampicillin 1 gm IV q6hrs for obstructive jaundice and ascending cholangitis. While hospitalized in Majuro, the patient's white blood cell count rose to 62,000, and after 5 days he was transferred to Honolulu (Tripler Army Medical Center) for further evaluation.

The patient had a history of Hepatitis B infection twenty years prior to admission and left nephrectomy for renal cell carcinoma several years earlier. He was born and raised on the island of Namodrik and lived there until the age of 16, at which time he traveled to Majuro for three years to receive training as a "Health Aide." He frequently traveled to many of the neighboring islands and atolls but had never traveled outside of Micronesia. He took no medications and did not use tobacco or alcohol.

Examination revealed marked jaundice, hepatosplenomegaly,



and diffuse adenopathy with cervical, supraclavicular, axillary, and inguinal lymph nodes. There was bilateral leg edema extending to the knees. Abdominal and chest computed tomographic (CT) scan showed bilateral axillary, precarinal, anterior mediastinal, and mesenteric adenopathy as well as hepatosplenomegaly and moderate ascites. Peripheral blood smear was suggestive of acute leukemia or high grade lymphoma/leukemia (Fig 1). Peripheral blood flow cytometry studies confirmed T-Cell Leukemia (Table 2). Western Blot analysis confirmed HTLV-I infection. The patient was treated with Zidovudine 200 mg PO five times daily and Alpha-Interferon 10 million units SC daily.

The patient's hospital course was characterized by progressive multiple organ system failure including oliguria, anasarca, asterixis, hyporeflexia, and lethargy. A lumbar puncture was performed which revealed no evidence of central nervous system involvement by the lymphoma or leukemia, or CNS infection. Lactulose therapy for hepatic encephalopathy was initiated. The following day the patient's mental status improved and the white blood cell count decreased to 50,000. On the fifth night of admission the patient's temperature rose to 100.7 F and Ceftazidime 1gm IV q8hrs was administered. He developed an allergic reaction so the antibiotic was changed to Imipenem 500 mg IV q6hrs. Administration of 4 liters per nasal canulae of oxygen was required to maintain 92% saturation by pulse oximetry.

On the sixth hospital day AZT was discontinued because of progressive elevation in liver enzymes and liver failure. By the seventh day oliguria developed and IV Furosemide failed to increase urine output. Low grade disseminated intravascular coagulopathy, nonoliguric renal failure with creatinine increasing to 2.0 mg/dl, and possible hepatorenal syndrome evolved and the patient became progressively more somnolent. The patient decided not to continue treatment and he died on the eleventh day of his admission. Despite the development of multiorgan system failure his white blood cell count reached a nadir of  $23.5 \times 10(9)/L$  and an absolute lymphocyte count  $18.1 \times 10(9)/L$  with treatment.

### Pathology

Examination of the patient's admission hemogram and peripheral smear disclosed normal red cell parameters and an atypical lymphocytosis (white count 64,900; lymphocytes 90%) comprising moderately sized cells with immature chromatin, one to several variably conspicuous nucleoli, and variably folded to overtly convoluted and multilobulated nuclear configurations. Cytoplasm was scant to moderate in quantity and non-granular. A conspicuous minority of cells manifested a "hand-mirror" appearance (Fig 1) due to the presence of a cytoplasmic uropod. Platelets were decreased (60,000).

Bone marrow aspirate smears and core biopsy sections revealed cellularity of 50% with a predominance of normal appearing hematopoietic elements. Aspirate smears showed 30% and core biopsy sections 20% of nucleated cells to be lymphoid with immature cytologic features and folded nuclear contours. In core biopsy sections these lymphocytes formed aggregates which occupied non-paratrabeular foci.

Peripheral blood lymphocytes were studied by flow cytometric analysis. Approximately 95% of lymphocytes manifested a mature T helper cell phenotype and were Tdt negative (Table 2).

Bone marrow cytogenetics study disclosed chromosomal abnormalities in 19 out of 20 cells examined, involving complex rear-

	In Majuro	In Honolulu
White Blood Cell	52 x 10(9)/L	54.3 x 10(9)/L
Hemoglobin	14 g/dl	15 g/dl
Hematocrit	39%	44%
Platelets	78 x 10(9)/L	66 x 10(9)/L
Absolute Granulocyte Count	8.32 x 10(9)/L	4.3 x 10(9)/L
Absolute Lymphocyte Count	42.1 x 10(0)/L	4.3 x 10(9)/L
Prothrombin Time	13 seconds	19.6 seconds
Partila Thromboplastin Time	36 seconds	52 seconds
Total Protein	7.0 g/dl	6.7 g/dl
Albumin	3.1 g/dl	2.7 g/dl
Aspartate Aminotrasferase	394 U/L	426/U/L
Alanine Aminotransferase	160 U/L	146
Alkaline Phosphatase	243 U/L	202 U/L
Total Bilirubin	9.4 mg/dl	15 mg/dl

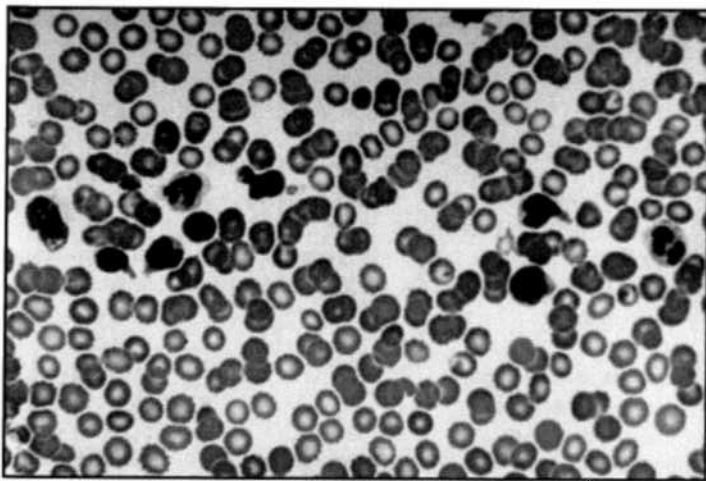
Cell Markers	Percentage of Cells Positive
CD2	96
CD3	94
CD4	92
CD5	95
CD7	4
CD8	2
Myeloperoxidase	2
Tdt	0
CD34	1
CD45	98
CD56	1
HL-DR	17

rangements of chromosomes 1, 9, 12, and 15 [46, XY, del (9) (q12), der (12) t (1;12) (q21; q24), add (15)(q24)]. Peripheral blood analysis disclosed a Western Blot pattern which was positive for HTLV-I antibodies.

The aggregate of these findings was diagnostic of Adult T-Cell Leukemia Lymphoma related to HTLV-1 infection.

### Discussion

Human T-cell lymphotropic virus type I (HTLV-I) is the first human retrovirus isolated and one of the first viruses to be confirmed as causing human cancer.<sup>4</sup> In addition to adult T-Cell Leukemia/Lymphoma it has been implicated in Tropical Spastic Paraparesis/HTLV-I-Associated Myelopathy (TSP/HAM), a chronic, progressive degenerative disease of the spinal cord.<sup>5</sup> Because the virus is endemic in parts of Japan, T-Cell leukemia/lymphoma is the most common type of lymphoma in that country.<sup>6</sup> The virus apparently infects Cd4+ human T-cells and integrates its proviral DNA into the cell's own genome.<sup>7</sup> There is genetic variability in viruses from different geographical locations which does not appear to play a role in the clinical presentation of the infection.<sup>8,9</sup> Major genetic differences exist between viral isolates from Japan, Africa and Melanesia, and the rare isolate from a Polynesian patient has been reported to be virtually identical to the Japanese strain.<sup>2</sup> Prior reported cases of



Peripheral Blood Smear (600x original magnification)  
Atypical Leukemic Lymphocytes with scattered hand mirror cells.

HTLV-I infection in Hawaii were associated with TSP/HAM and occurred in Japanese-American patients whose parents had lived in regions of Japan that were endemic for the virus.<sup>10</sup> This patient represents the first case reported in the English language medical literature of HTLV-I associated T-cell leukemia from Micronesia.

It is unclear how our patient acquired his HTLV-I infection. Since HTLV-I is known to be transmitted by blood products, and contact with body fluids he could have become infected at the same time as his Hepatitis B was acquired. It is not certain how the patient

developed Hepatitis B, however, he denied blood transfusions, even during his nephrectomy. During his work in the Marshall Islands the patient was frequently exposed to blood products. Since HTLV-I has not been previously documented in Marshallese patients, the presumed extremely low prevalence of the virus in that population makes it unlikely that he acquired it through occupational exposure.

Since much of the tertiary health care provided to the Micronesian population occurs at various civilian and military medical institutions in Hawaii, all practitioners should be aware of this first case from that region. While a rare disease, recent publications suggest that significant palliation and even cure is possible with aggressive chemoimmunotherapy using alpha-interferon and zidovudine.<sup>11</sup> Investigation of seroprevalence rates of HTLV-I infection in the Republic of the Marshall Islands and other Micronesian populations may provide a window of opportunity to further elucidate the mode(s) of transmission, infectivity, and carcinogenicity of this retrovirus.

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#### **Editor's Note:**

This is our first "Case of the Month." This new feature honors our late editor Harry L. Arnold Jr. MD. Benjamin W. Berg MD will serve as editor and facilitator for this new and unique series of case reports from our Medical Ohana. Manuscripts for the "Case of the Month" may be sent to LTC Benjamin W. Berg, MC, Chief Pulmonary/Critical Care at Tripler Army Medical Center, HI 96859 and a copy to the Journal office.

**There's No Excuse  
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# Medical School Hotline

## The Impact of Changes in Medical Care on Medical Education

**Richard B. Friedman MD**  
Professor Department of Medicine  
University of Hawaii Medical School

There have been major changes in health care delivery during the past decade. These changes have affected medical education nationally and in Hawaii. They have resulted in some fundamental alterations in how and where medical education takes place. The impact of these changes in health care delivery has been somewhat muted in Hawaii because the John A. Burns School of Medicine had, from its inception, placed an emphasis on primary care. It was therefore an early leader in utilizing local ambulatory clinics as sites for medical education.

Among the major medical education initiatives that have resulted from managed care are:

1. Emphasis on primary care and utilization of ambulatory clinics as teaching sites.
2. Introduction of distance education and telemedicine techniques.
3. Increased number of courses to make physicians knowledgeable in medical ethics, interpersonal skills and alternative medicine.
4. Use of computer assisted instruction.
5. Introduction of Evidence Based Medicine.
6. Instruction in Women's Health and Geriatric Issues.
7. Teaching of issues related to cost-effective practice in medicine.

### Emphasis on Primary Care

Until a few years ago the majority of physicians graduating from American medical schools went on to specialty training. The developing surplus of medical specialists coupled with an increasing demand for primary care physicians ("gate keepers") has resulted in an emphasis on training primary care physicians. State and Federal Government initiatives helped to stimulate this shift. Funds were provided to encourage medical schools to emphasize primary care. The Federal Government began to penalize residency programs that turned out a disproportionate number of specialists.

In the past, the majority of student education occurred on the inpatient wards of large urban hospitals. Now these institutions have constructed their own outpatient clinics and partnered with private clinics to increase student's experience in outpatient medicine.

With the increased shift to managed care, medical schools, hospitals and clinics are coming under increased financial pressures. Medical schools and their affiliated hospitals and clinics must now compete with clinics that do not support teaching programs. The payments once available to support these programs have disappeared in the increasingly competitive health care environment. Private physicians and clinics involved with medical education are finding that they no longer can accept the decreased productivity

inherent in this activity. Medical schools are increasingly being rebuffed in their attempts to find clinical teaching locations.

The University of Hawaii Medical School has always been a leader in its emphasis on training primary care physicians. Medical school clerkships and residency experiences in Internal Medicine, Family Practice, Pediatrics and Obstetrics and Gynecology have for many years occurred at small clinics and physician offices around the state. Major hospitals in Honolulu have traditionally supported large teaching ambulatory care clinics.

### Telemedicine and Medical Education

The increased emphasis on primary care has resulted in medical students having their clinical experiences away from the medical school campuses. It is imperative that the medical school faculty continue to interact with the students to teach them the course material. In some cases this has been accomplished by having the students return frequently to the medical school campus. In other cases this is accomplished by having the faculty travel to the clinics. Neither of these techniques has been totally successful. A number of schools have begun to experiment with Teleconferencing to bring students at outlying facilities together with the faculty for frequent interactions. Telemedicine has also made it possible to provide these students increased access to medical school library resources, specialists and even clinical consultations. Whether this technique, by permitting greatly enhanced two way interactions, will be more successful than previously used one-way television presentations remains to be determined.

John A. Burns School of Medicine was an early pioneer in telemedicine through links with the Tripler Army Hospital. A number of initiatives are now underway to use televideo to enhance medical school teaching at locations outside Honolulu.

### Medical ethics, interpersonal skills and alternative medicine

High profile legal cases revolving around such issues as death and dying, right to die, and doctor assisted suicides have resulted in an awareness that physicians need training in medical ethics. In the past formal courses in medical ethics were rarely included in the medical school curriculum. It was believed that skills in this area would be developed through actual case experience during residency or clinical practice. Medical schools around the country have realized that their students were not well equipped to handle these issues.

Concerns by clinics and HMOs that graduating medical students had poor patient interaction techniques have resulted in an increased emphasis on teaching interpersonal skills. How to talk to patients, how to deal with the elderly and handicapped individuals as well as members of minority groups are areas of concern. Cultural sensitivity in the practice of medicine has been receiving increased attention.

There is recognition that a large percentage of Americans get some or all of their medical care from alternative care providers (chiropractors, acupuncturists, herbalists, naturalists and others). Physicians are often poorly informed about these practices. A number of medical schools have recently developed courses in Alternative Medicine.

Being a multicultural state, Hawaii was an earlier leader in teaching culturally sensitive medicine. Exposure to alternative medical practices has long been part of the medical student's

experience at many rural clinics throughout the State.

### **Computers in Medical Education**

For over a decade there has been a general belief that computers should play a significant role in medical education. Computer Assisted Instruction (CAI) may be useful in helping medical students learn factual material. Early programs at such schools as Ohio State, University of Illinois and Harvard Medical School, indicated that the computer could assist the medical school faculty in presenting this material. Computer simulations may be helpful in teaching students how to make cost-effective decisions about diagnosis, therapy, and follow-up care. They can do so without exposing patients to the risks inherent in receiving care from students still in training. Computer-assisted mannequins permit students to practice surgical techniques, resuscitation skills and a myriad of other manual techniques.

Recently there has been considerable interest in the Internet and the World Wide Web (WWW) of the Internet in medical education. Courses developed on the WWW would permit greater sharing of educational material among medical schools and permit more convenient access to computer assisted teaching techniques.

While such material has become increasingly popular, there is little data supporting a clear benefit in medical education. In a recent article in *Academic Medicine* this author pointed out ten reasons why the Internet and Computer based medical education material may not be a panacea. These included: internet based courses are not well integrated into the medical school curriculum; these programs are often poorly designed; frequently students are not tested on the content presented in these courses; and computer equipment is frequently difficult to access and non-standardized.

The University of Hawaii has an Instructional Resources Laboratory that gives students access to computer teaching modalities. Special classes are available to teach students computer skills and most students are familiar with the medical resources on the Internet. At Queens Medical Center, students and residents gain firsthand experience with computer based order entry.

### **Evidence Based Medicine**

The emphasis placed by HMOs on the cost-effective practice of medicine has increased the requirement that physicians be able to defend their clinical decisions before review groups. This has resulted in an increased interest in evidence based medicine. There is growing recognition that there are some medical practices that have not been subjected to rigorous clinical testing. This has resulted in increased interest in teaching students the careful review of the literature in order to ascertain which practices are based on sound clinical evaluation.

### **Women's and Elderly Health Issues**

Various factors have contributed to the belief that traditional medical education does not place sufficient emphasis on the study of women's diseases. Medical schools have developed courses in women's health to make physicians more responsive to this group's needs.

As the general population ages, more and more patients are over 65 years of age. A number of years ago it became apparent that these older patients have very particular health needs. Their reactions to medication, disease profile, physiologic changes associated with aging, inability to take care of themselves and other issues separate them from the general population. The specialty area of Geriatrics has evolved over the past ten years with specialized courses for medical students, residency and fellowship programs, special research funding and Specialty Board designation.

The University of Hawaii Medical School has special programs for women's health needs and has been designated a special Geriatric Research Center.

### **Cost Effective Medicine**

Managed care has brought with it an increased emphasis on cost-effective medicine. Students are being taught how to calculate the cost-effective component of test selection. They are being apprised of the cost of various diagnostic and therapeutic modalities in order to achieve cost efficiencies.

These are very exciting times for medical education. The John A. Burns School of Medicine has been a pioneer in meeting many of these challenges by actively promoting and emphasizing training in primary care in outpatient clinic settings. The curriculum reflects a concern for training physicians who are grounded in issues relating to medical ethics, interpersonal skills, alternative medicine, women's health, geriatrics, evidence based medicine and cost-effective medicine.

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# William Crawford Gorgas

## He Set the Standard of Military Preventive Medicine

Colonel Thomas M. Cashman MD\*

*William C. Gorgas spent the first twenty years of his career dedicated to the daily tasks of rural patient care. When assigned to Havana, his practicable application of Walter Reed's demonstration of Yellow Fever transmission resulted in the elimination of Yellow Fever within eight months. His perseverance in applying principles of arthropod born disease control allowed the completion of the Panama Canal. He developed the Sanitation Corps, presently Army Environmental Health Services, and initiated emphasis on preventive medicine for the soldier. He served as the Surgeon General of the Army during World War I, when for the first time in our history fewer soldiers died from disease than from combat casualties.*

*"The success of any system of sanitation ... will depend a great deal upon the choice of the man who has charge of carrying it into execution. If he believes in it, has tact, is enthusiastic and persevering, it will succeed. If he is discouraged by difficulties and opposition he will fail, even if his system is correct."*

Thus, William Crawford Gorgas, whose achievements in infectious disease control allowed the completion of the Panama Canal, summarized his own approach to attain his professional goals. The genius of this man, the prototype for U.S. Army Preventive Medicine Officers and who initiated the Army Sanitation Corps, was his ability to persevere, to be open to the ideas of others, and to make practical use of them.

William C. Gorgas was born on October 3, 1854, near Mobile, Alabama the son of a U.S. Army Ordnance Officer. His family lived in Charleston, South Carolina, when the Confederates fired upon Ft. Sumpter. His father Josiah, a Pennsylvanian married to an Alabama woman, accepted a commission as a Brigadier General of Ordnance in the Confederate Army.

Young William Gorgas lived in Richmond, Virginia, during the Civil War. There he met Jefferson Davis, Robert E. Lee and Thomas "Stonewall" Jackson in the front parlor of his home when they came to confer with his father. Staunchly Confederate, he went barefoot during the last winter of the war in empathy with the ragged Southern Soldiers. He remained loyal to the South throughout his adult life and as a Federal Officer serving in Cuba, still argued that if the South had won secession, it would have eventually abolished slavery. His mother, deeply religious with a strong personality, remained a lifelong influence on him. Her keen sense of humor and zest for telling tales was apparent in Dr Gorgas who was an entertaining conservationist and often related his favorite stories, many about the Pirates of Panama.

Growing up, young William was hot-tempered, an indifferent student and a good athlete. During his military career he did a remarkable job controlling that temper. From early on he expressed an interest in the military, but his father actively discouraged this ambition. Nevertheless, he applied to West Point. President Grant's regime would not appoint the son of one who rose to the rank of Lieutenant General of Ordnance of the Confederacy and whose skills and dedication had prolonged the Civil War. William studied at The University of the South in Swanee, Tennessee, and as a student experienced his first encounter with Yellow Fever. He served as a volunteer in a New Orleans epidemic, and two of the four volunteers from his university died of this disease. Returning to school, he turned to his surviving friend and said, "Matt, I am going to try to find something that will drive this terrible thing from the earth."

Gorgas completed his studies in Swanee and, on his father's advice, studied law in New Orleans. After one year he discontinued his law studies. Still aspiring to the military, he studied medicine at Bellevue Medical College in New York City, and planned to make a career in military medicine. At Bellevue, he was a student of Dr William Welch, who in later years, as Dean of Johns Hopkins Medical College, strongly supported Gorgas as the Chief Sanitation Office of the Panama Canal Zone. While a medical student, he volunteered to help in a Yellow Fever epidemic in Memphis, Tennessee, but could not go because he lacked immunity to the disease. He completed his internship at Bellevue in June of 1880 and, in spite of his father's objections, accepted a commission as a First Lieutenant in the U.S. Army Medical Corps.

For the next twenty years, Dr Gorgas practiced inconspicuously at various isolated posts in Texas, North Dakota, and Florida. He was congenial and enjoyed an active social life. His cheerful bedside manner was a consistent quality in his practice. He was a dedicated physician and on two occasions almost froze to death, riding out in the North Dakota winter to attend the birth of Sioux infants. Against

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The views expressed in this manuscript are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

orders because he was not immune, he attended Yellow Fever patients and eventually contracted the disease. However, because of his subsequent immunity, he then received further assignments to care for Yellow Fever patients. One of these patients was Marie Doughty, whom he later married. Because of his interest and work with Yellow Fever he came in contact with Dr Josiah Nott, who coincidentally was the physician who attended his own birth. Dr Nott had published an article in *The New Orleans Medical and Surgical Journal* stating that malaria and Yellow Fever were transmitted by insects, possibly mosquitoes. However Dr Nott failed to convince Gorgas of his theory.

In 1901 the Army ordered MAJ William Gorgas to special duty in Havana to serve Yellow Fever Patients. While there Gorgas cared for Dr Victor Vaughan, stricken with the disease. Gorgas greatly impressed Dr Vaughan with his skills as a physician. Dr Vaughan, who became President of the American Medical Association, became an important ally to Gorgas during the Panama Canal Project. In Havana, Gorgas at first held to the miasma (filth) theory of Yellow Fever transmission and took steps to clean up the city. The incidence of Small Pox, Typhoid, and Dysentery decreased and the death rate in Havana dropped below that of several European cities. However, the incidence of Yellow Fever increased.

Gorgas became friends with Dr Carlos Finlay, who developed the theory that the Stergomyia mosquito (*Aedes aegypti*) transmitted Yellow Fever. Because of this theory, many fellow professionals considered Finlay to be a crackpot. Gorgas himself did not accept this theory either but remained respectful of Dr Finlay. Dr Henry R. Carter of the U.S. Public Health Service was convinced that Finlay's theory was correct. He had observed an epidemic in Mississippi and noted that Yellow Fever patients could be visited without hazard within the first ten to twelve days after the patients had become ill. Beyond that time, even if the patient had died, visitors were in mortal danger. Carter concluded there was a period of "intrinsic incubation." He attempted to publish his findings and contribute further to Finlay's theory. He concluded that transmission by Stergomyia required a 10 to 14 day incubation period in that mosquito after it had taken a blood meal from the Yellow Fever victim. The Journal of the American Medical Association; *JAMA* initially rejected his paper because it was too long. Publication of these findings were delayed two years.

Army Surgeon General Sternberg, doubting another popular theory of the time that Yellow Fever was due to a yet unproved "bacillus icteroides," dispatched the Walter Reed Commission to Havana. Walter Reed demonstrated transmission of Yellow Fever by the Stergomyia mosquito, and Gorgas took great care to credit Finlay with his important deductions, singling out the correct mosquito from over 800 species. Having observed a difference of virulence in Yellow Fever between summer and winter, Gorgas preserved a winter mosquito to infect patients as an immunization method. However, after several deaths, he deemed this approach too dangerous. Gorgas although not totally convinced that the mosquito was solely responsible for Yellow Fever transmission, decided to attack the mosquito in an attempt to break the disease cycle. Walter Reed replied to him "it can't be done." Dr Gorgas studied the habits of the Stergomyia. He found it to be an urban dweller with a preference for fresh water. He established a clean-up campaign using fresh water larval traps and appointed district officers to scour the city for unprotected fresh water. He screened the windows of

hospitals and the homes of Yellow Fever patients. He put screens on catchment water barrels and fined violators who left unprotected water on their premises five dollars. If the violators cooperated and removed unprotected water, Gorgas returned the five dollars. The Cubans, who assumed that all bureaucrats were dishonest, were so enamored when Gorgas returned their five dollars that they continued to cooperate. This program was so successful that Havana has been free of Yellow Fever since late 1901. Gorgas' mosquito control program also greatly reduced malaria. There had been nothing comparable in medical history to this remarkable war on mosquitoes.

In 1902 the Army promoted Gorgas and summoned him to Washington, DC. President Roosevelt, on the advice of Dr William Welch, appointed him as the Chief of Sanitation of the Panama Canal Project and sent him to Europe and Egypt. Gorgas studied the French's failed attempt to complete the Panama Canal and their successful Suez Canal project. He found that twenty-five percent of the French work force died during the project and one third of the force missed work each day due to illness. More than 22,000 men died of infectious disease during the French attempt. This experience convinced Gorgas that for the Panama Canal project to be successful he must control Malaria and Yellow Fever. Gorgas understood that Malaria was the greater threat and caused the greatest loss of French lives. "... if we do not control malaria our mortality is going to be heavy." He decided to attack Yellow Fever first to avoid panic should an outbreak occur. He concluded that if twenty to thirty thousand men came to Panama, the annual death toll could reach three to four thousand. On completion of two years in Europe and Egypt, Roosevelt sent Gorgas to the Canal Zone as an advisor with no real authority, rather than appoint him to the Panama Canal Commission. The American Medical Association had strongly supported that Gorgas be appointed to the commission. Thus William C. Gorgas began his trial of perseverance. Courtly, affable, described by an American engineer as "a grand, quiet, lovable man," he was unequivocally devoted to duty and physically hardened from hardships of frontier duty. His imperturbable and sensitive manner hid a disciplined, tough minded personality of such perseverance that he was the only senior official to see the Panama project through from start to finish.

The Retired Admiral Walker, chairman of the Panama Canal Commission and an engineer, did not agree that mosquitoes transmitted Yellow Fever and Malaria. Walker was obsessed with the notion that corruption was the cause of the French failure and would not fund a number of projects. He ignored Gorgas' appeal for supplies and experienced personnel. As a result Gorgas arrived in Panama with Dr Henry Carter and five others with virtually no materiel. They found numerous Stegomyia and Anopheles mosquitoes in every building. They found larvae in earthenware jars holding drinking water, open cisterns, rain barrels, pockets of ground water, crockery rings surrounding plants and in the shallow pans of water under the floor posts hospital beds to prevent ants from getting into the beds. There were no window screens and the hospital staff, French doctors and Sisters of Charity, were all infected with malaria. After dark the hospital staff would wrap themselves in bandages soaked in citronella to protect themselves from the swarms of mosquitoes.

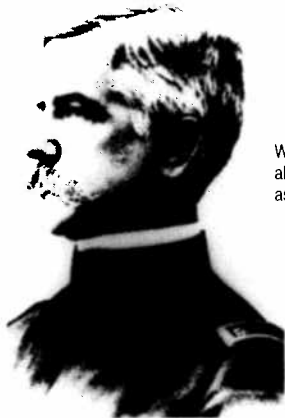
Gorgas considered the mosquito as the most deadly predator of Panama and intended to solve the problem by learning the biology



William Gorgas as the Army Surgeon General



General Gorgas talking with a patient on the grounds of Walter Reed Army Hospital



William Gorgas as a Major about the time of his assignment to Havana



William Gorgas viewing a mosquito breeding site in Panama

of the specific mosquitoes in order to destroy them. Walker publicly ridiculed Gorgas, would not support him with resources, and criticized him for wasting worker hours chasing mosquitoes and wasting material for fumigation programs and screening buildings. General George Davis, Governor of the Canal Zone, who professed great friendship for Gorgas, tried to "set him right," to get these wild ideas out of his head. Gorgas repeatedly sent urgent cables for supplies and material. Walker answered evasively if at all and told Gorgas by return cable that cables were too costly; use the mail.

This commission ruled from Washington DC and rarely visited Panama for fear of Yellow Fever. No one on the commission had ever organized a giant construction project, nor were they accustomed to dealing with the massive supply and labor problems. None had medical training, and they considered the canal solely as a problem of engineering. Scrupulously honest, Walker was convinced that corruption was the only cause of the French failure. He put enormous obstacles in the way of resource requests often not reading requests to fund projects. The American Medical Association (AMA) sent Dr A.L. Reed to Panama on a fact-finding mission. His findings and report of the obstructionist posture of the Walker commission, along with political pressure from the AMA, resulted in the firing of Walker.

Theodore Shonts, the new commissioner, immediately laid the groundwork to replace Gorgas with "a man of more practical view," an unknown Osteopath whose views on disease control agreed with Mr. Shonts. During this time of trial, friends counseled Gorgas to quit. His secretary told he would get so upset he would sweep his papers into his desk drawer and go off a few days to cool off. Nevertheless, his wife described his basic nature as cheerful and he continued to enjoy dinner parties, his friends, and storytelling.

Shonts forwarded his recommendation to replace Gorgas through Taft, Secretary of War. Taft, a friend of Dr A.L. Reed who had just exonerated Gorgas, approved the recommendation and passed it on to President Roosevelt. Roosevelt first sought the advice of Dr W.H. Welch, Dean of Johns Hopkins School of Medicine, and his friend, Dr Alexander Lambert. Welch advised that Gorgas was the most qualified for the job, and Lambert told Roosevelt that the major obstacles to building the Canal were Yellow Fever and Malaria. "Keep Gorgas and give him the proper authority and the Canal will be built," said Lambert.

President Roosevelt rejected the proposal to remove Gorgas and told Shonts to give the doctor his full cooperation. Shonts changed his attitude. Gorgas oversaw the development of two major hospitals in the cities of Colon and Panama and several station hospitals within the Canal Zone interior. He visited patients in the hospital regularly as a clinician, although sanitation was his primary effort. He established a mortality

**Until theres a cure,  
theres the Diabetes Association.**

record, successfully dealt with respiratory diseases due to overcrowding, upgraded a leprosarium, eliminated Yellow Fever, and controlled Malaria. The last case of urban Yellow Fever in Panama occurred in December 1905. Four thousand workers lost their lives during the American era as compared to 22,000 during the French era.

Dr Gorgas continued to have difficulties with engineers. Lt. Colonel G.W. Goethals, described by Marie Gorgas as power hungry, took over as chief engineer. His authoritarian leadership style conflicted with Gorgas' more persuasive manner. Goethals attacked the cost of sanitation, about \$350,000 per year, complaining that sanitation expenses were five percent of the total costs of building the canal. He cut spending and in some cases he was right. In the case of grass cutting he was able to clear more area at less cost. The Yellow Fever control program continued to progress successfully. Gorgas blamed Goethals for incomplete control of Malaria. Goethals, in turn, wrote that Gorgas had done little and the real credit of Yellow Fever and Malaria control should go to Walter Reed and Ronald Ross. Ross had visited the Canal Zone and described Gorgas' campaign as sound in every detail. Goethals also took credit for Yellow Fever control through the accolades of J.G. Hibben, then President of Princeton University. It is difficult to understand why the engineer in charge of such an internationally important project would become involved in a debate about where the medical credits lie. Perhaps it was because of the significance of the infectious disease problems. Achorn, in his *History of European Civilization and Politics Since 1815*, states that the completion of the canal was a "triumph of medicine far more than of engineering skill." Yet it was a great engineering feat.

On completion of the Panama Canal, Gorgas traveled to South Africa to consult on the control of pneumonia in gold miners. While there he learned that President Wilson had appointed him the Surgeon General of the Army. During his tenure as Surgeon General he also served a term as President of the AMA.

In 1916, with the impending war in Europe, Surgeon General Gorgas began to build a strong Medical Reserve Corps. His goal was to establish an environment of "hygienic competence for the American soldier." He enlisted the support of many of the country's most prestigious physicians, such as the Mayo brothers, and established a legacy of excellent medical care. He eliminated the limit of Major as the highest rank Reserve medical officers could attain. From 1916 to June 1918 the Army Medical Department grew from fewer than 1,000 officers to 23,000. Professionals included physicians, dentists, nurses, veterinarians, and sanitation officers. By the end of the war, there were over 32,000 medical officers, 35,000 civilian physicians, 22,000 nurses, and 250,000 enlisted personnel in the Army Medical Department. Hospital beds expanded from 3,843 to well over 100,000 in 92 hospitals in France and the United States. Doctors performed over six million induction exams. Preventive medicine practices included vaccinations, emphasis on exercise, diet, proper clothing, adequate space, proper ventilation of the barracks, and recreational sports. Gorgas was instrumental in devel-

oping the concept of government responsibility to wounded soldiers, which included returning them to a useful and productive civilian life.

Because of the rapid manpower expansion during the war, troops experienced several epidemics of measles and pneumonia. Congress severely criticized the Surgeon General and the Army Medical Department. Gorgas testified before several congressional committees, and these investigations exonerated him as a competent administrator. These hearings established that authorities picked camp sites without medical input and developed living areas without adequate spacing or medical facilities. As a result of these hearings, Congress shifted the blame to the Secretary of War.

Because of his remarkable achievements as Surgeon General, William Gorgas was the first physician to attain the rank of Major General. However, he continued to refer to himself as "Doctor," aligning himself with the physicians in the field and clearly establishing his primary role as an Army doctor.

After retirement from the Army, Gorgas went to Peru and Ecuador to pursue his conquest of Yellow Fever. While visiting London, he suffered a stroke. This illness prevented a scheduled audience with King George the Fifth. The King broke protocol, stating that if Gorgas could not come to him, he would go to Gorgas. On this visit, the King of England elevated Dr Gorgas to Knight Commander of the Most Distinguished Order of St. Michael and St. George. Four weeks later, on July 3, 1920, William Gorgas died and his body was returned to America and interred in Arlington Cemetery.

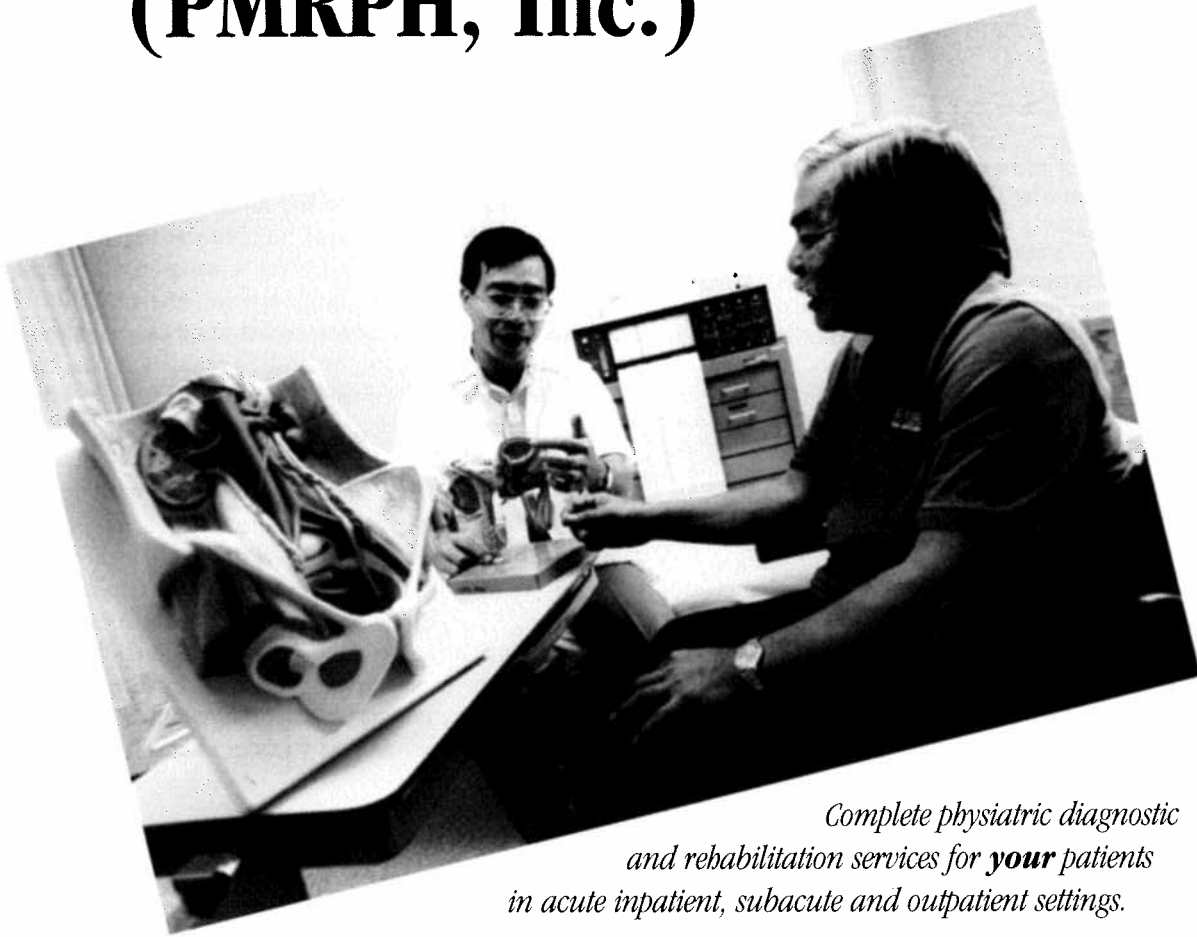
William C. Gorgas realized his genius in his ability to synthesize the ideas of others into a practical concept that benefited the world community. He was a master of organization and diplomacy who could enlist the cooperation of the of eminent physicians and statesmen.. Yet he also stayed in touch with the common man. As Surgeon General, he took time to write to a dying Army private. His career was a testimony to persistence and courage. He was a gentleman with a vigorous joy of life whose self-discipline leadership by example, and persuasiveness led to the control of Yellow Fever, Malaria, and other communicable diseases. He developed Army sanitation and because of him, the American Soldier lives today in the most hygienically sound environment in all of military history.

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# Herbal Medicines in Hawaii From Tradition to Convention

Scott A. Norton MD, MPH, MSc\*

*The stories of kava and chaulmoogra demonstrate the importance of herbal products in ancient and recent Hawaiian medicine. Kava is a psychoactive beverage that has been used ceremonially for millennia throughout the Pacific. It is a nonfermented depressant that causes tranquil intoxication in which thoughts and memory remain clear. Its broad pharmacologic activity led to use in Hawaii to treat skin disorders and later in Germany to treat gonorrhoea. Kava is now available outside the Pacific basin as a relaxant, emerging as a popular, albeit deritualized, natural product. In the late 19th century, the main treatment for leprosy was chaulmoogra, extracted from Hydnocarpus seeds. Chaulmoogra had been a traditional treatment for skin diseases in Ayurvedic and Chinese medicine. Chaulmoogra from Asian markets was expensive and usually adulterated so the USDA decided to plant Hydnocarpus in Hawaii. Joseph Rock, a botanist at University of Hawaii, trekked through southeast Asia collecting fresh seeds to plant on Oahu. Rock's trees provided chaulmoogra for leprosy patients on Molokai and elsewhere until it was replaced by dapsone. Chaulmoogra, once the treatment for leprosy worldwide, is now nearly forgotten; kava, once poorly known outside the Pacific, is now a widely-used alternative medicine. Hawaii will probably continue its role in the transition of plants from traditional use to conventional use.*

## Introduction

The Hawaiian Islands emerged from the Pacific seafloor over the past several million years. Each island arose as a volcano and passed

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through its geologic maturation, activity, dormancy, senescence, extinction, and subsidence. The island chain has no land connections; therefore all forms of life arrived here as colonists. Wind, water, and airlifts of seabirds brought the founding members of Hawaii's flora and fauna. In Hawaii's isolation, the ancestral plants and animals evolved into unique species, often quite different from their ancestors. Relatively few ancestral species acquired a foothold on Hawaii and from few, we now have many descendant species. Hawaii has the world's most richly endemic flora; nevertheless it is a depauperate flora.

Many of the plants that outsiders most closely associated with Hawaii are introduced. There are few native orchids, for example, and coconut palms were introduced by the ancient Polynesian voyagers who settled Hawaii. The Polynesian settlers brought with them 30 or so plants that were eminently useful in the ancestral homeland.<sup>1,2</sup> These include the staples for consumption, construction, clothing, art, and medicine, such as breadfruit, taro, sweet potato, coconut, banana, sugarcane, hala, and noni (Table 1). Many of these have become naturalized and are now fully a part of the Hawaiian landscape, such as coconut palms, wild ginger, and the state tree, the kukui.<sup>2</sup>

## Kava

One of the thirty or so plants brought by the settlers, kava, has pharmacological activity that led to its use in both traditional ceremonies and in traditional medicine.<sup>3</sup> Kava refers to both the plant and the beverage that is made from the plant. The kava beverage has psychoactive effects that produce a calm, tranquil effect but thoughts and memory remain clear. The plant probably originated in Vanuatu (the former New Hebrides) but, as Pacific peoples migrated, they carried their most useful products with them.<sup>4</sup> Kava became widely used in rituals throughout the Pacific's three ethnogeographic regions: Polynesia, Micronesia, and Melanesia. The plant has become naturalized on many high islands with rich soils but it is absent from coral atolls and from temperate islands such as Aotearoa (New Zealand).

Western scientific attention to kava started with the Forsters, father and son, who served as the naturalists on Cook's second voyage.<sup>5,6</sup> They prepared the proper Linnean binomial, *Piper methysticum*, which means "intoxicating pepper." Kava is in the family Piperaceae, meaning it is a true pepper closely related to black pepper and to the pepper leaf used in preparing betel quids.

Kava is a shrubby plant with jointed stems and heart-shaped leaves. There are perhaps two-hundred varieties of the kava plant in the Pacific, based mostly on differences in stem morphology. The varieties also differ in their potency. The psychoactive components are most concentrated in the lower stems and upper roots of the plant.

## Traditional Kava Preparation and Ceremonies

There are several traditional ways to prepare kava, differing by ethnogeographic region. The parts of the plant with the greatest concentration of active ingredients are the lower stems and upper roots. These portions were gathered and prepared into the kava beverage according to the practices of the ethnogeographic region. In Polynesia, for example, a group of young people, selected for their strong teeth, chewed the roots and collected the macerated root pulp in a kanoa or kava bowl. Water was added and the turbid mixture was strained through the inner bark of the hau tree<sup>4</sup> (although in Hawaii, the pounded fibers of a sedge, 'ahu'awa, were used<sup>2</sup>). Nowadays chewing is uncommon outside parts of Vanuatu. Kava is still prepared by young people, but using Western tools such as this mortar and pestle made from a steel drum and a car axle or food processors. At night in traditional villages in Fiji, Tonga, and other islands, one hears the thumping of kava being pounded, albeit with modern modified techniques.

The traditional kava ceremony, on the other hand, has remained relatively unchanged for millennia. It is a ritual attended only by men, usually those of the higher castes. All members sit, usually barefoot and cross-legged, on the ground. The presiding members and honored guests have their places, as do the men who prepare, mix, and serve the kava. Cups of kava are filled, passed to an individual for consumption, returned, and refilled in several-to-dozens of rounds in an evening. The first Western illustration of a kava ceremony was prepared by John Webber, illustrator on Cook's third voyage.

Kava is a powerful symbol of traditional culture in Pacific society.<sup>3</sup> This is reflected in the flag of the State of Pohnpei in the Federated States of Micronesia where the kava (sakau) cup is central item. The watermark on Western Samoa's paper currency is the tanoa, or ceremonial kava bowl. But in this century, kava has been deritualized. On many Pacific islands, kava is no longer restricted to men of a certain class or for consumption during specified occasions. It is a social beverage consumed with those with whom you wish to have warm social interactions. It is still consumed in a group setting; there are no solitary drinkers. The calming effects of the beverage distinguish it from alcohol that is often accompanied by disinhibition and violence, often severe domestic violence. For this reason, kava was introduced by Fijian missionaries into some Australian aboriginal communities to replace alcohol and the frequent social hazards that stem from alcohol in that community.<sup>7</sup>

Kava's neuropharmacologic properties are that of a spinal depressant. Overindulgence in kava can cause transient ataxia or an uncoordinated walk because it depresses both the movement and sensory functions of the spinal cord. Coordinated walking may become difficult because one has diminished control over one's muscles and because of the difficulty in sensing where one's feet are. Because of this ataxia, some societies grade the beverage's potency as a one-day, two-day, or three-day kava, based on duration of lingering effects.

## Kava Dermopathy

Kava dermopathy is a side effect that interests me, as a dermatologist, greatly. Kava dermopathy is an acquired reversible ichthyosis<sup>3</sup> – or scaly skin eruption. It arises after prolonged and excessive consumption of kava and appears as a generalized, shiny, scaly skin resembling a cracked porcelain glaze. On some islands at the time

of Western arrival, this skin disorder was a mark of prestige for only a few noble were able to spend their days in the consumption of kava. Commoners, instead, fished or worked in the fields but some members of the highest castes participated in daily kava circles. In many Pacific societies, traditional healers induced kava dermopathy to other skin diseases, most likely superficial fungal infections and psoriasis. People with skin diseases were instructed to drink kava until their skin became scaly; then the kava was withheld. The kava eruption reversed and the scales would shed, descending from the head.<sup>8</sup> As the dermopathy resolved so did, according to traditional practice, the other skin disease.

The cause of kava dermopathy is unknown. Several explanations, some traditional, some modern, have been proposed. In Samoa and Tonga, the explanation recounts a Tui Tonga (King of Tonga) who sailed to an outer island afflicted by drought and famine. The islanders had no food to offer as a gift so the local chief sacrificed his beautiful but leprous daughter. The Tui Tonga was honored by the sacrifice but declined to eat the flesh of the young girl. Instead, he instructed the girl's father to bury her body behind her house. From the burial site, the first kava plant emerged. Today, those who drink the beverage made from kava will acquire the girl's scaly, leprous skin.<sup>3,9</sup> Western explanations are less colorful but no more supported by scientific evidence. Suggestions that kava dermopathy is a form of pellagra (a dietary deficiency of niacin or tryptophan), a photoeruption, or an acute allergic dermatitis are disproved by skin histopathology and other studies. Ruze suggested that kava may interfere with cholesterol metabolism necessary for proper keratinocyte formation.<sup>10</sup> This hypothesis warrants further investigation as a better understanding of cholesterol metabolism might influence the management of many more serious medical conditions.

## Pharmacology of Kava

Kava extract contains about fifteen compounds called kavalactones, all of which are structurally and pharmacologically unique.<sup>4</sup> Kava's neuropharmacologic effects are also unique which explains why early Western descriptions of kava are so often muddled. Kava is non-narcotic, non-opiate, nonfermented, nonalcoholic, nonhallucinogenic, and physiologically nonaddicting. The word narcotic, by the way, has both pharmacologic and legal definitions, neither of which apply to kava. Kava's range of pharmacologic actions was recognized by traditional healers and the beverage was used for more than just its relaxant, calming effects. Kava was used to treat skin disorders (as described above), to treat asthma and other lung disorders, and to treat urologic problems.<sup>11</sup>

## Kava in the West

Kava was first adopted into a Western pharmacopoeia in Germany where kava once served as a standard treatment for gonorrhea. Germany's interest in kava began with its colonization of the western Pacific around the turn of the century. German-occupied islands where kava was consumed ritually include what is now American Samoa in Polynesia, Papua New Guinea in Melanesia, and Pohnpei in Micronesia. German biochemists, finest in the world a century ago, extracted and identified the constituents of kava. German physicians used kava preparations to treat gonorrhea until the advent of penicillin.

In recent decades, kava has been used to control experimental

seizures in laboratory animals and to attempt control of psychosis in humans. Trials with kava in people were stopped because kava dermatopathy developed.<sup>12</sup>

Kava is, nevertheless, widely available in the West. In Germany and France, it is a prescribed medicine. In the United States, it is available at many health food stores and so-called nutrition centers. Kava is available as tablets, alcohol tincture, powder, and unprocessed root. Most kava products are marketed towards non-traditional users. Pacific islanders living in the United States, may now purchase boxes of instant kava in which root powder wrapped in a muslin bag is steeped in water to prepare the beverage for ceremonial and deritualized use.

A 1996 *Newsweek* cover story entitled "The Natural Drug Culture: From Herbal Ecstasy to Melatonin: What are The Risks?" quoted an herbal medicine entrepreneur, Shayan, who remarked that, "Kava is the next big thing. We think it can be as big as coffee."<sup>13</sup> There is considerable financial interest in the kava-growing Pacific and among entrepreneurs to introduce kava widely into western society. Marketing efforts, in most cases, accent the allure of tranquil life on a Pacific island because the scant amount of kavalactones in these preparations is unlikely to produce physiologic effects.

In addition to its emergence in the botanicals industry, kava may make the leap from traditional Pacific medicine to conventional Western therapeutics. Conventional pharmacologists and physicians continue to study kava for its neuropharmacologic and psychoactive effects. Kava's effect on the skin also deserves further study as it is probably due to subtle interference in cholesterol metabolism.

## Chaulmoogra

The history of modern medicine in Hawaii is closely associated with leprosy or Hansen's disease (HD). The disease was introduced to the islands by Chinese peasants brought in to work in the canefields. The native Hawaiian population was vulnerable to the disease which then ravaged native populations. People with visible stigmata of leprosy were isolated for life in the Kalawao settlement on Molokai. The fear historically associated with HD comes from the disfigurement caused by the disease and the notion that it was an incurable and highly contagious condition. There was little hope for effective treatment until the 1850s when several promising reports emerged from the British Medical Service in India. The reports claimed that a local herbal medicine, chaulmoogra oil, could control the disease.<sup>14</sup> This brought chaulmoogra out of the realm of traditional medicine and into the mainstream Western pharmacopoeia.<sup>15</sup> Chaulmoogra quickly became the treatment of choice for HD worldwide yet very little was known about it. All of the chaulmoogra oil used in western medicine was purchased from native bazaars in Burma and Siam. The demand for chaulmoogra was enormous but the supplies were insufficient, often adulterated, and always expensive.

## University of Hawaii and Chaulmoogra Production

Chaulmoogra was considered so important that the United States Department of Agriculture (USDA) decided to break the Asian chaulmoogra cartel. In 1920, they hired Joseph Rock for the job.<sup>16</sup> Rock taught botany and Chinese languages at the University of Hawaii and was one of the premier botanists on the islands, having

written *The Indigenous Trees of Hawaii* in 1913. For months, Joseph Rock trekked through the rainforests of Siam and Burma in search of chaulmoogra trees. This was no simple task as the tree was scarcely known to Western botanists and it grew in just a few relatively inaccessible mountainous regions. But after a year, Rock had gathered enough seeds to return to Hawaii.<sup>17,18</sup> The USDA used the seed to start a chaulmoogra plantation on 30 acres in the Waiahole Valley on Oahu. After a decade, the young chaulmoogra trees were producing enough seeds to supply oil for American leprosaria, such as the ones at Carville and Molokai.

The chaulmoogra tree is *Hydnocarpus kurzii* but the obsolete name generic name, *Taraktogenus*, appears in much of the older literature. There are about 40 species in *Hydnocarpus*, mostly in southeast Asia.<sup>19</sup> Medicinal oils were extracted from the seeds of three species. The tree stands about 40 feet tall and has shiny green leaves. The fruits are about the size of an orange with a thick velvety-textured skin. Inside the fruits are dozens of hard, angular, marble-sized seeds. To make the oil, the seeds are crushed and subjected to pressure extraction. The resulting amber-colored oil is a mixture of two fatty acids based on a cyclopentane ring that differ slightly in their chemical composition.<sup>20</sup> These acids were named chaulmoogric and hydnocarpic acids after the common and scientific names of the plant. The best method of extracting oils was developed by Dr Arthur L. Dean, second president of University of Hawaii.<sup>21</sup> Dean's derivative, as it was called, was the mainstay of chaulmoogra production around the world for many years.

## Medical Uses of Chaulmoogra

The chaulmoogra products were further refined into oral, topical, and parenteral forms. But all reports indicate that the best treatment was with parenteral chaulmoogra, usually injected subcutaneously. Treatment called for 15cc of oil to be injected, twice weekly, for multiple 10-week courses until the disease was cured or went into remission.<sup>22</sup> It was a painful regimen and a survey of patients showed that many would prefer to have their disease left untreated than to continue the mandatory therapy.

It was thought that chaulmoogra could indeed cure lepromatous disease and so for more than 50 years, chaulmoogra was hailed as the only effective treatment for HD. Burroughs-Wellcome and Bayer were the largest commercial producers of chaulmoogra and made several products (Alepol, Moogrol, and Antileprol) that were available until the 1940s.

## Pharmacology

The mechanism of action of chaulmoogra is not known. A theory proposed in the 1930s suggested that chaulmoogra activated host lipases that subsequently destroyed all foreign lipids, including both the chaulmoogra oil and the lipophilic cell wall of the Hansen's bacillus. The other theory invoked counter-irritation, a sort of chemotaxis in which the irritation caused by the injections drew phagocytes toward the lepra bacilli.<sup>22</sup> In truth, we simply don't know whether chaulmoogra had any effect whatsoever on HD. No proper therapeutic trial with chaulmoogra was ever conducted.

In the 1940s, sulfones (such as dapsone) were developed and shown successful in the treatment of HD. Still, some proponents of chaulmoogra resisted change. In the 1940s, an article in *Lancet* advocated combination therapy with sulfones and chaulmoogra

**Table 1.—Hawaiian Plants Mentioned in text**

Common name	Hawaiian name	Linnean binomial	Family
breadfruit	'ulu	<i>Artocarpus altilis</i>	Moraceae
taro	kalo	<i>Colocasia esculenta</i>	Araceae
sweet potato	'uala	<i>Ipomea batatas</i>	Convolvulaceae
coconut	niu	<i>Cocos nucifera</i>	Arecaceae
banana	mai'a	<i>Musa paradisiaca</i>	Musaceae
sugarcane	kō	<i>Saccharum officinarum</i>	Poaceae
pandanus	hala	<i>Pandanus spp.</i>	Pandanaceae
noni	noni	<i>Morinda citrifolia</i>	Rubiaceae
wild ginger	'awapuhi	<i>Zingiber zerumbet</i>	Zingiberaceae
candlenut	kukui	<i>Aleurites moluccana</i>	Euphorbiaceae
kava	'awa	<i>Piper methysticum</i>	Piperaceae
sea hibiscus	hau	<i>Hibiscus tiliaceus</i>	Malvaceae
sedge	'ahu' awa	<i>Mariscus javanicus</i>	Cyperaceae
wormwood	'ahinahina	<i>Artemisia spp.</i>	Asteraceae

because their properties were viewed as complementary.<sup>23</sup> Nevertheless, the U.S. Public Health Service declared in 1942 that “the oil has little or no curative value, and its unpleasant side effects probably outweigh any advantage it could possibly offer.”<sup>24</sup>

And so chaulmoogra, once the standard of care, has been dropped from our formularies and from our memories. In the 1930s, the branch of *Hydnocarpus* was the symbol of the International Congress of Leprology but by the 1950s, better treatments allowed us to abandon chaulmoogra therapy and, more importantly, to abandon the concept of isolating patients in leprosaria.<sup>16</sup>

### Current Military Interest in Plant-Derived Medicines

The conveners of the conference asked me to include a brief discussion on current American military interest in plant-derived medicines. During the Gulf War, considerable attention was given to plant-derived medications, such as atropine and physostigmine (from *Atropa belladonna* and *Physostigma venenosum*, respectively), that can prevent or reverse the effects of nerve agents. Historians and physicians, however, remind military leaders that the greatest threat to deployed soldiers is disease, not battle injury. The most abruptly debilitating diseases are acute infectious diseases, particularly those that are arthropod borne. Throughout much of the world, mosquito-borne diseases, such as dengue and malaria, hamper military operations. Consequently, the development of antimalarials for both prophylaxis and treatment greatly interests the Department of Defense. The customary therapy for malaria has always been quinine or quinine derivatives, obtained from several members of *Cinchona* in the coffee family, Rubiaceae. The early history of Peruvian bark as an antimalarial and febrifuge is well known. At the beginning of World War II, quinine supplies became a strategic military concern because of the Japanese occupation of the Dutch East Indies, now Indonesia, where much of the world's quinine was produced. During World War II, the War Department

sent botanists the jungles of South America to search for other rubiaceous plants for the fight against malaria. The co-leader of the Department of Economic Warfare's cinchona mission was Ray Fosberg, a botanist trained at University of Hawaii and who later returned to the Pacific to become one of the premier botanists in Hawaii and Micronesia.<sup>25</sup>

Fortunately, quinine's chemical structure had been known since the work of Pelletier and Caventou in the 1820s. When quinine was scarce, quinine-like products were synthesized and soon several of these were also used in the prevention and treatment of malaria (chloroquine, quinidine, atabrine, primaquine, and mefloquine). In much of the world today, malaria is resistant to chloroquine so many non-quinine products, such as doxycycline, are now used to manage malaria.

Nevertheless, the Army is still interested in plant-derived treatments for malaria. The Walter Reed Army Institute of Research (WRAIR), Division of Experimental Therapeutics, is interested in qinghaosu (or artemisinin), a medicine derived from *Artemisia annua* of the sagebrush genus. Several derivatives of qinghaosu are used widely in China (and experimentally elsewhere) to disrupt the life cycle of the malarial protozoan.<sup>26</sup> *Artemisia* has many species in temperate regions of the northern hemisphere but only a few are known to have antimalarial activity. Three members of the genus are native to Hawaii but their antimalarial activity has not been assessed.

### Conclusion

The stories of two substances, kava and chaulmoogra, demonstrate the importance of herbal products in both ancient and recent Hawaiian medicine. When the USDA needed someone to obtain chaulmoogra seeds, they turned to a University of Hawaii botanist, Joseph Rock, who could venture successfully in the Pacific Rim. The only place where soils and climate were suitable for chaulmoogra plantations was also in Hawaii. And finally, another member of University of Hawaii, Arthur Dean, developed the extraction technique to enable chaulmoogra to serve as the treatment of choice for leprosy for several decades. Remember that Dean was not simply a staff member at the university, but its president, providing testimony to the level of involvement at this institution. Kava, once poorly known outside the Pacific, is emerging as a widely-used alternative medicine, in great part due to the interest generated in this state. Hawaii, with its agricultural sophistication, salubrious climate, and heritage of accepting plant-derived medicines, will probably continue its role in the transition of plants from traditional use to conventional use.

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#### Notes of Interest:

The first Western illustration of kava was prepared by Sidney Parkinson, ship's artist on James Cook's first voyage to the Pacific. On this voyage, Cook was sent to Tahiti to observe the transit of Venus, a planetary eclipse, in an attempt by the Astronomer Royal to calculate the distance from the earth to the sun. Other observations were made from stations in South Africa and Greenwich to allow triangulation of the distance.<sup>9</sup> On Ralatea, near Tahiti, Parkinson prepared a watercolor that, once back in England, was transferred to copper plates which were then stored, nearly forgotten for two centuries, in the archives of the British Museum. Parkinson's 743 illustrations were resurrected in the magnificent work called the *Banks Florilegium*. Only 50 sets of the 34-volume *Florilegium* were printed. University of Hawaii has a copy in the Special Collections of the Hawaii Pacific Reading Room at the Hamilton Library.

Rock described several of his Asian expeditions in articles published in *National Geographic*. Photographs from Rock's Tibetan expeditions were collected in *Lamas, Princes, and Brigands* by Michael Aris, husband of Aung San Su Kyi. Rock's chaulmoogra plantation was in Oahu's Waiahole Valley (best known for the Waiahole Poi Factory). The only remaining chaulmoogra trees (*H. kurzi* and *H. anthelmantica*) in the United States are at the Foster Botanical Gardens in Honolulu.

### Military Medicine

*Continued from Page 372*

for full tuition and a stipend during medical school, and allows for up to 6 weeks of training per year in a Military Medical facility during Medical school. Medical Students thus have the opportunity to visit Military Residency training programs prior to application. Application for first year graduate medical education (internship) training is accomplished through the American Association of Medical Colleges (AAMC) Electronic Residency Application Service (ERAS). Positions are available only for those applicants with a HPSP or USUHS obligation. The Military "match" program takes place earlier than the civilian match. In early December the positions are matched with the applications, similarly to the Civilian process. Announcements are made in late December or January. Military bound fourth year students have "matched" months earlier than their civilian classmates. They generally have a much more relaxed spring semester!

While the curriculum in Military GME programs is based upon the standards and requirements of the ACGME, there are additional curricular topics which have been termed a "Military Unique Curriculum" These topics are topics which are of special importance to the Military Physician. Some such topics may be indeed unique (e.g. management of radiation injuries, and aerospace medicine), and others may be included in standard residency curriculums yet require special emphasis (e.g. tropical medicine and wound management). The curriculum development process for Military residencies includes a number of common Military Medicine topics for all disciplines. Included are the Advanced Trauma Life Support (ATLS) course and ACLS. Integrated into the routine residency training are topics such as medical management of burns, infectious diarrhea, trauma surgery, transfusion medicine, and sexually transmitted diseases. There is special emphasis placed on some such subjects, and focused intensive training through specialized courses is provided in Chemical and Bio-

logical casualty management, and Tropical Medicine. Other specialized courses in Aviation Medicine, Diving Medicine, Environmental Medicine, and Hyperbaric Medicine are taught during residency, or after primary residency training is completed. Other topics which are of particular importance to all Military physicians include heat and cold injuries, post-operative care, closed head injury, altitude related illness, disaster medicine, and vaccination strategies for deployment.

The development of a specialized residency curriculum in Military Medicine is an ongoing project which includes field experiences in addition to the didactic and clinically based experiences. The important concepts of public health and field hygiene are learned through didactic sessions and opportunities to participate in training exercises, medical relief missions, and formal military field training courses. Residents from Tripler Army Medical Center have participated in field experiences in Micronesia, Mongolia, Japan, Samoa, and in the Mainland U.S. Residents routinely participate in the Aeromedical Evacuation of patients to and from Hawaii. The combination of didactic training and operational experience give the Military Resident an enhanced knowledge of Militarily relevant medical issues, and a singular knowledge of Militarily unique topics. The practice of medicine in the Military is geographically dispersed. The medical conditions encountered may be particular to geography, occupation, or battle. The training of Military physicians must encompass the spectrum of diseases and management strategies that are common to all practice environments, in addition to those aspects of practice which are unique to the Military practice. The U.S. Army GME system is in the process of defining and implementing a Military Unique Curriculum, which will serve to assure that Military Physicians are trained for the practice environment that lies ahead.

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# 141st HMA Annual Meeting

October/November 1997 Hilton Waikoloa, Island of Hawaii

## House of Delegates

### Attendees

**Speaker of the House:** *Dr H. K.W. Chinn*

**Vice-Speaker of the House:** *Dr P. Blanchette*

**Officers:** *Dr J. Spangler, President*

*Dr L. Howard, President-elect*

*Dr R. Kimura, Secretary*

*Dr C. Kelley, Treasurer*

*Dr C. Lehman, Immediate Past President*

### Component Society Presidents:

*Dr W. Dang, Jr. - Honolulu*

*Dr L. Sonoda-Fogel - Hawaii*

*Dr A. Bairos - West Hawaii*

*Dr G. McKenna - Kauai*

### Councilors:

*Drs T. Au, P. Chinn, C. Goto, R. Hollison, C.*

*Kadooka, B. LeeLoy, M. Shirasu, R. Stevens, J.*

*Weisul, R. Wong*

**Delegates:** *Drs E. Adams, B. Azman, E. Bade, L. Buencosejo, M. Cheong, K. Durante, D. Fu, E. Gutteling, K. Hara, M. Hefley, P. Hellreich, W. Hoskinson, M. Jackson, S. Kemble, C. King, H. Lim, E. Magnier, T. Magoun, W. McKenzie, C. Miura, G. Pang, P. Pang, C. Nip-Sakamoto, B. Shitamoto, D. Parsa, H. Percy, A. Siu, T. Smith, L. Tom*

### Delegates to AMA:

*Drs Calvin Kam and Allan Kunimoto*

### Alternate Delegates to AMA:

*Drs F. C. Holschuh and S. Wallach*

**Resident Physician Delegate:** *Dr S. Baker*

**Medical Student Delegate:** *W. Hara*

### Past Presidents:

*Drs J. Chang, H.Y.H. Chinn, A. Don, J. Lowrey,*

*J. Lumeng, J. McDonnell, R. Stodd, S. Uehara*

**Guests:** *Yank D. Coble MD, AMA Trustee; Robert Hertzka MD., AMPAC Board Member; Mr. Kinn Elliott, AMPAC Regional Administrator; Masahiko Kuwabara MD, Permanent Board Member of Hiroshima Prefectural Medical Association; Yoshinori Takashima MD, Vice-President of Hiroshima Prefectural Medical Association; Mr. Mitchell Nvorak, AMA Medical Society Relations Representative of Hawaii.*

### HMA Staff

*J. Won, N. Jones, B. Kendro, H. Singh, J. Asato,*

*P. Kawamoto, D. Shiraishi, N. Yamamoto, A.*

*Rogness - recording secretary.*

### In Memoriam

Colleagues Deceased since the 1996 House of Delegates

*Edward Emura MD*

*Thomas Frissell MD*

*Samuel Haraguchi MD*

*Robert Nordyke MD*

*Pauline Stiitt MD*

*Ralph Suetsugu MD*

*Irvin Tilden MD*

*Rudolph Wipperman MD*

*Warren Wong MD*

*Doris Yee MD*

*Allan Young MD*

### Elected Officers

**President:** *Len Howard MD*

**President-elect:** *Patricia Chinn, MD*

**Treasurer:** *Charles Kelley MD*

**AMA Delegate:** *Calvin Kam MD*

**Alternate AMA Delegates:** *Drs Frederick C.*

*Holschuh, and Stephen Wallach*

**Speaker of the House:**

*Herbert K.W. Chinn MD*

**Vice-Speaker of the House:** *Peter Kim MD*

**Young Physician Delegate:**

*Gregory Caputy MD*

**Resident Physician delegate:** *Sherri Baker MD*

**Medical Student Delegate:** *Wendy Hara*

**Maui Councilor:** *Milton Yolles MD*

**Kauai Councilor:** *Gerald McKenna MD*

**Hawaii Councilor:** *Edwin Montell MD*

**West Hawaii Councilor:** *Blase LeeLoy MD*

**Honolulu:** *Drs Bo Ekloff, Philip Hellreich,*

*Ronald Kienitz, William McKenzie, Stanley Saiki,*

*Jr., Michael Sia, Charlie Sonido, Walter Young.*

## HMA Nominating Committee

**Kauai:** *Gerald McKenna MD*

**Maui:** *Russell Stodd MD*

**Hawaii:** *Edward Gutteling MD*

**West Hawaii:** *Blase LeeLoy MD*

**Honolulu:** *Drs Lee Buenconsejo, Herbert K.W.*

*Chinn, John Houk, Carl Lehman, David Saito.*

**Past Presidents:** *Drs Jeanette Chang and*

*Stephen Wallach*

## Sports Awards

### Golf Tournament Winners:

Low Bross, *Barry Shitamoto MD*

Low Net, *William Dang, Sr. MD*

### Tennis Tournament:

**Champions:** *Diane Nagasaki MD, Robert Meierdiercks*

**Finalists:** *Norberto Baysa MD, Esperanza DeLeon*

### Table-Top Tennis Tournament:

**Winner:** *Robert Rowe MD*

## Halloween Contest Winners

HMA: 1st place, Uncle Sam & Lady Liberty (*Dr and Mrs Fred Holschuh*)

2nd place, (tie) Homeless lady (*Dr Myron Shirasu*) Friends of Pooh Corner (*the Physicians Exchange*)

3rd Place, Santa Pumpkin Clause (*Dr Roger Kimura*)

MSRH: 1st place, Family - the Dalmation Family (*Lorna Perez-Janssen Pharmaceutical*)

2nd place, Individual - The Ideal Patient (*Dean Maeva-Forest Pharmaceuticals*)

3rd place, Carmen Miranda - *Lisa Armenio (UCB Pharma)*

## Booth Decorating

1st place, *Astra-Merck (The Lost World)*

2nd place, (tie) *Abbot Laboratories (H. Pylori & bugs) Parke-Davis Co. (Reps in Black)*

3rd place, *Searle Labs (Rastafarians)*

# Primary Care Update

## Highlights of the HMA Scientific Session

Elizabeth M. Adams MD

Myron Shirasu and his committee again produced an excellent program. This year there were concurrent sessions on Friday and Saturday mornings, making it impossible for one person to attend them all. Where I was not present at a talk I have relied on the speaker's handouts and the comments of those who did attend in preparing this summary.

On Friday, October 31, Dr Laurie K.S. Tom's topic was the treatment of type 2 diabetes. Close control of glycemia reduces complications. When diet, exercise and weight reduction do not adequately control glucose levels other measures are necessary. The options are oral agents, insulin, or a combination of the two. Dr Tom then discussed the use of three relatively new oral agents: biguanides, alpha glucosidase inhibitors and thiazolidinediones.

Dr Michael Kusaka's topic was travel medicine. He discussed the treatment of traveler's diarrhea; malaria prophylaxis; routine immunizations for measles, mumps and rubella, polio, influenza, pneumococcal infections, and tetanus and diphtheria; and immunization for yellow fever, hepatitis A and B, Japanese encephalitis, rabies, typhoid, meningococcal infections, and when and where these are recommended.

Dr Michael Moore (Bowman Gray School of Medicine) gave two presentations. In the first, "Strategies to Improve Cardiovascular Health in Hawaii", he discussed the need to treat hypertension aggressively, to reduce obesity, chronic alcohol use, and fat and sodium intake.

In his second talk Dr Moore discussed the evaluation and treatment of hematuria and albuminuria in children. One should be concerned if there are more than 3 rbc/hpf. Management will vary with the cause, which will vary with the age of the child. Persistent proteinuria, in the absence of infection, indicates glomerular disease. Nephrotic proteinuria, is treated with prednisone.

Dr Carla Nip-Sakamoto discussed common dermatologic problems in children. The risk of melanoma developing in a small or intermediate (<20 cm.) congenital melanocytic nevus is 1-5%. However with a giant congenital nevus the risk is 5-12%, with 60% of the melanomas occurring in the first ten years of life. The smaller nevi should be removed before puberty, but the larger ones at 3-6 months of age. 2% of malignant melanomas occur before age 20, 30% of these arising in giant melanocytic nevi. Dr Nip-Sakamoto then described various types of atopic dermatitis and their treatment, and classification and treatment of acne vulgaris, types of alopecia, and new therapeutic agents.

Dr Gregory Chow discussed childhood and adolescent orthopedic problems.

Dr John McDonnell's topic was adolescent smoking, which is

increasing after declining for several years. He described the ploys which tobacco companies use to lure children and teens to smoke, the adverse effects of smoking (pulmonary and cardiovascular disease, increased risk of lung, laryngeal, oral and other cancers, and other conditions). Addiction to nicotine occurs early and it is then very difficult to quit. Smoking kills more people every year than alcohol and other drugs, car accidents, suicides, AIDS, homicides and fires combined. Exposure to environmental tobacco smoke carries risks similar to those of active smoking. Smoking during pregnancy increases the risk of miscarriage, fetal death, and low birth weight infants. Although the risks of smoking are well known, many physicians do not advise their patients to stop nor offer assistance with quitting. Since most smokers begin the habit in childhood and adolescence increased efforts to curtail juvenile smoking are urgently needed.

Saturday morning's program began with Dr Naoki C.S. Tsai discussing "The ABC's of Hepatitis".

Hepatitis A accounts for 45% of acute viral hepatitis in the US, hepatitis B for 35% of acute viral hepatitis and 25% of chronic, and hepatitis C for 17% of acute and 45% of chronic cases. There is no specific treatment for hepatitis A, but most recover. A vaccine is available for those at increased risk (travelers to endemic areas, the elderly, etc.). Acute hepatitis B is usually not fatal. Chronic hepatitis B may result in cirrhosis or hepatic cancer. Hepatitis B is vaccine-preventable. Hepatitis C virus mutates quickly; only 10-15% recover from the acute infection; in 85% infection persists and may be benign or progress to cirrhosis or cancer eventually. Both B and C virus infections are treated with interferon.

Next Dr Robert B. Baron discussed the treatment of hypercholesterolemia. Men should be screened starting at 45 and women at 55. Both LDL and HDL should be determined. Triglycerides are not an independent risk factor for CHD. Treatment should begin with diet and exercise, and drug therapy reserved for those at high risk of CHD. Those over age 75 should not be treated if there is no evidence of CHD yet. Dr Baron then described the various drugs which can be used and the indications for them.

In a second presentation Dr Baron discussed the treatment of obesity. One third of adults in the US are obese (more than 20% above desirable weight). With dietary treatment 20% will achieve and maintain a 20 lb. weight loss; only 5% will lose 40 lb. and maintain it. Body Mass Index is more important than body fat. BMI over 40 = morbid obesity. Prevention of obesity is more effective than treatment. People lose weight with very low calorie diets and exercise but this usually doesn't last. The only predictor of success in maintaining weight loss is continuing exercise. The goal is to lose



fat, not muscle. Resistance training preserves muscle mass. Fenfluramine and dexfenfluramine are now off the market because of their association with cardiac valvular disease. Some new drugs are being tested but not yet approved.

In the concurrent session on Women's health issues, Dr Edwin Gramlich described premenstrual syndrome of which about 75% of women have symptoms during their reproductive years and various options for treatment: life-style changes (diet, exercise, stress reduction), and possible use of SSRIs when symptoms are severe.

Next Dr Ken Arakawa discussed the prevention and treatment of osteoporosis. Osteoporosis occurs in men but is much more common in women. All postmenopausal women should have bone density checked. Vertebral fractures usually occur earlier than hip fractures and result in loss of height and deformity and pain. Hip fractures result in 20% excess mortality in the first year. 50% never recover fully. Management includes analgesics for pain, weight-bearing exercise, prevention of falls, use of calcium and vitamin D. Estrogens can be started 10-20 years post-menopause but must be continued forever, but there may be an increased risk of breast cancer. Calcitonin may be used with calcium and vitamin D. Bisphosphonates prevent bone resorption; the newest of these, alendronate (fosamax) has been approved by FDA for osteoporosis.

Dr Alan R. Katz's topic was sexually transmitted diseases in Hawaii. Chlamydia is most common both here and nationally. Gonorrhea, AIDS and hepatitis B come next locally. Hawaii has very little syphilis now. Chlamydia is treated with doxycycline or azithromycin (erythromycin if pregnant), and gonococcal infections with cephalosporins.

Dr David Amberger's topic was human papillomavirus and neoplasms of the cervix. Various subtypes of the virus are implicated in different neoplasms; adenocarcinoma, invasive squamous cell carcinoma, small cell carcinoma, and condylomata. The highest incidence of infection with human papilloma virus is in young women, the risk decreasing after age 30. Other risk factors for cervical cancers are coexisting genital infections, early intercourse, having numerous sex partners, and smoking. 20% of pap smears initially reported negative have abnormal cells on rescreening, usually atypical squamous cells. 4500 women die of cervical cancer every year; of these 1/3 have had negative pap smears in the previous 5 years.

Dr Merle Miura-Akamine discussed chronic pain management in a managed care setting, focussing on the Kaiser Spine Clinic model. Initial focus is on educating primary care physicians to manage pain. Pain should be prevented if possible and treated early when it occurs. It is important not to undermedicate. Meds used are NSAIDs, narcotics, antidepressants, muscle relaxants and anticonvulsants. It is better to dose around the clock, avoiding peaks and troughs of blood levels. Injections, if necessary, are best in the acute phase. Rest should be limited and early return to activity encouraged. Exercises, walking, pool therapy may be important. If these measures are not sufficient referral to physiatry spine clinic is indicated.

Next Dr Bruce Katsura discussed stroke rehabilitation and the long term sequelae of stroke. Rehab encompasses prevention of comorbid illness and medical complications, training for maximal functional independence, and facilitating psychosocial coping. He described common impairments after stroke and their frequency, stages in recovery from hemiplegia and predictors of outcome, and

typical functional outcomes.

Kathleen Brown, PhD, spoke on the treatment and management of dementia. The type of intervention is determined by the severity of the impairment of brain function and which functions are lost. Common concomitants of dementia are depression, delirium, anxiety, agitation, restlessness, sleep disturbances, hallucinations and delusions, apathy and withdrawal. Family caregivers need to be educated in management of these problems. Some dementias are reversible: those due to emotional disturbance, metabolic disorders, eye and ear disorders, nutritional disorders, tumors, trauma, and infections.

Dr Richard I. Tsou discussed the evaluation and management of urinary incontinence in adults, which affects 15-30% of those over 60, women twice as often as men. Patients should be referred to a specialist if the diagnosis and management are unclear, if there is no response to treatment trial, if there is hematuria without infection, recurrent urinary tract infections, severe urinary retention, pelvic prolapse or prostate nodule.

Sunday morning's program dealt with end-of-life issues. Dr Yank Coble, AMA Trustee, presented the AMA position in opposition to physician-assisted suicide. Patients should be encouraged to make advance directives. Pain management and use of hospice are important.

Andi van der Voort, RN, discussed the Hemlock Society's view that patients should have a right to ask for help in dying and that it is not humane to refuse. She supports enactment of a law which would allow the physician, after the patient has submitted a written request 3 times within a 15 day period, to prescribe a lethal oral dose of barbiturate which the patient could fill and use when he chooses.

Pat Kalua, RN, talked about hospice programs which offer palliative, not curative, care in a facility or in the patient's home. Patient and family, as a unit, are provided care and emotional support. Dying can be a good experience. The most common fears of dying patients are of pain, dependency, and the unknown.

Next Dr Max Botticelli discussed the physician's role in the care of the dying patient. The physician can help the patient define goals for the remainder of his life and make rational decisions. Most patients do not have living wills. Living wills are usually too vague to be helpful and they do not protect the patient from unnecessary care in ER or hospital. It would be dangerous to rely on patient requests to die; physicians, including psychiatrists, are not good at determining the competency of depressed patients. Emphasis should be on control of pain, not possible side effects of adequate pain control, and avoidance of unnecessary treatment.

Dr Reginald Ho moderated a panel discussion with these four presenters. One point which was made is that the local drug enforcement unit in Hawaii understands the use of large doses of narcotics in controlling the pain of terminally ill patients and will not prosecute physicians unreasonably.



## 1997 HMA Annual Meeting and Presidential Inauguration

*Saturday, November 1, Waikoloa Village Resort*

**Row 1.**—(left to right) Welcome to new HMA president Leonard Howard, MD. Dr. Howard was given the oath of office by Yank Coble, MD, member of the AMA Board of Trustees from Jacksonville, Florida. Dr. Bernard Scherman, and Dr. Stephen J. Wallach congratulate Dr. Frederick C. Holschuh (center), HMA's Physician of the Year for outstanding community service.

**Row 2.**—Dr. Herbert K.W. Chinn hands sister Dr. Patricia Chinn, president-elect, their father's gavel from 1971 when Dr. Herbert Y.H. Chinn served as president of HMA. Incoming president Len Howard, MD with immediate past president, John Spangler, MD. Dr. Yank Coble, Marilyn Howard, Dr. Len Howard and Dr. Yoshinori Takashima, Vice President, Hiroshima Prefectural Medical Association.

**Row 3.**—Keiko Kuwabara, Hiroshima Prefectural Medical Association; Karen Shirasu and Dr. Myron Shirasu, chair of the HMA Annual Meeting; HMA past presidents and officers getting ready for the presidential procession: Drs. Fred Holschuh, Andy Don, Jeanette Chang, Chuck Kelley, Roger Kimura, Carl Lehman, Len Howard, and John Spangler.

**Row 4.**—HMA secretary, Dr. Roger Kimura; Dr. Barry Shitamoto and Dr. Sakae Uehara (past president). Dr. John McDonnell, past president. Dr. Chuck Kelley, newly-elected HMA treasurer. Mrs. Ella (John) Edwards and pianist John Alexander provided entertainment for the inauguration ceremony.



## Happy Halloween

*October 31, 1997 - Hilton Waikoloa*

**Row 1.**—Carol Lehman (Andy) and Carl Lehman (Ann) in their splendid Halloween costumes. Diane Holschuh and Dr. Fred Holschuh won the costume contest sponsored by the medical service representatives. Dr. Jennifer Kelley (Mrs. Chuck) and daughter carving pumpkins at the Getting Ready for Halloween party.

**Row 2.**—The first and second pictures are our medical service reps from Hawaii—sorry we didn't get the names of these exhibitors who made Halloween night so fun for all. Noreen Yamamoto and Joella Kawamoto from the HMA staff.

**Row 3.**—The heifer is Carol Uyeda, with black-eyed pea Heidi Singh and the Nubian slave "Cleo" Becky Kendro from HMA staff. That's Dr. Richard Tsou showing his kids how to carve a pumpkin. Dr. Jeanette Chang and her granddaughters.

**Row 4.**—Another black-eyed pea with Mrs. Keala Yuen and medical service reps. The "Old Lady" as he called himself is Dr. Myron Shirasu with Kalani Brady's daughter and HMA staffer Jennie Asato.



**Life in These Parts  
All Stings Considered**

(Dr Craig Thomas and Susan Scott; 233 pages, U. of Hawaii Press)

**Craig Thomas MD** is director of emergency medicine at Wahiawa General Hospital and Susan Scott is a marine biologist who writes the weekly column "Ocean Watch" for the Star-Bulletin. "With the publication of All Stings Considered, ignorance is no longer an excuse for having a good time in the ocean. This book is user friendly". (Gregg Ambrose, SB writer)

**Doctor's Don't Really Save Lives**

**John Dempsey Huitt**, 70, died on June 28. John was a retired Kaiser pediatrician and a Gideon International member who once wrote in a 1974 Advertiser article: "Doctors don't really save lives; they only extend them for a brief period of time in comparison with eternity. Often they get so involved in extending a life without realizing the need for the patient's eternal life."

**New CEO**

On August 1, former Tripler Medical Center, chief of staff, **Thomas Driskill**, 52, became CEO for the Hawaii Health Systems Corp (HHSC), the new non-profit organization that takes over management of the 13 community hospitals and medical centers from the state Dept. of Health.

**Hope After Stroke**

Two new drugs to become available:

**HU 23F2G:** May be given as late as 12 hours after a stroke. **Marek Mirski**, director of QMC's Neuroscience Institute says if the drug works, 30 to 50% of stroke patients would benefit.

**Lubeluzole:** to be used at Queens and Pali Momi in tandem with t-PA.

**New Procedure for Aortic Aneurysms**

**Frank Tabrah**, Straub physician had a silent aortic aneurysm picked up by a CT scan. In February 1996, he had an experimental minimally invasive vascular procedure done by vascular surgeons **Bo Eklof** and **Elna Masuda** and interventional radiologist **Robert Lipman**. Drs Masuda and Lipman had trained at Sweden's University of Lund with Bo Eklof who reports that 75% of aortic aneurysms will be treated with the new technique in 5 years.

Frank says "I figured it was a good shot." He figured right because he was soon back playing tennis and has never had the slightest problem since. "I was up eating that evening, out of the hospital on the fifth day, and back to work on the 13th."

**Hope for Infertile Women**

The Pacific In Vitro Fertilization Institute at Kapiolani has launched an egg donation program for infertile women. Co-director **Philip McNamee** explains that the Institute implants donor eggs in infertile women, usually over 35 with ovarian problems caused by cancer surgery, chemotherapy or congenital abnormalities. The pregnancy rate

is 50 to 60%. Donors receive about \$2,000 for their eggs and the invitro procedure costs about \$16,000.

**Thomas Huang**, the institute's lab director says the donor eggs work well because donors are no older than 32. New research may soon allow older women to inject the contents of donor eggs into their own eggs, thus maintaining a genetic link to the embryo.

**The Heptachlor Story**

For 15 months (1981 and 1982) the people of Oahu were exposed to high levels of the pesticide heptachlor through milk products (because of a glitch in processing cow's feed). The good news is that no early serious ill effects have been detected. The final word about delayed effects is not out. (There is guarded optimism since environmental toxins take years to reveal their effects).

Hawaii subjects carry less heptachlor than residents of Arkansas, N. Carolina, and other southeast areas where pesticide was widely used.

The Foundation will focus on possible long-term effects, notably on immunological, reproductive and neuro-behavioral systems.

(Message from Willis Butler, president of the Hawaii Heptachlor Foundation).

**Medivac Choppers**

In a unique partnership since 1974 (after the Vietnam War), the Army has saved Hawaii taxpayers an estimated more than \$4 million and thousands of lives by providing emergency helicopter medical and rescue services. In the past 23 years, the MAST program has performed 4,572 civilian missions and flown 4,886 hours.

**MAST**

Unit: 68th Medical Detachment  
Helicopters: Six UH 60 Black Hawks  
Missions: 4,548  
Patients: 5,686  
On Call: 24 hrs/d 7d/wk  
Response time: 10-15 minutes

**Physician Moves**

**May:** **Cesar B. deJesus** announced his retirement effective June 1.

**July:** Dermatologist **Timothy Hagino** opened his private practice at Kapiolani Medical Center at Pali Momi, Ste 480.

**October:** **Robert Hollison Jr.** and his University Family Medical Clinic affiliated with Straub Clinic. The clinic has been renamed the Straub Manoa Family Health Center and Bob remains director. **Internist Tyrone Dang and FP Jennifer Frank** relocated to Artesian Plaza, 1907 S. Beretania St., 5th floor.

**November:** General and thoracic surgeon and thoracic oncologist **Paul Morris** opened his practice at Queen's POB II, Ste. 107.

**Hors de Combat  
Good, Bad, or Both:**

A study by teams from UCLA, USC and Rand Corp. have found that Medicare patients in man-

aged care plans are only half as likely to have cataract surgery as those in traditional fee-for-service plans. (About 1.4 million cataract surgeries are performed in the U.S. each year, representing the largest single expenditure by Medicare. More than half of all American over age 65 have cataracts and unoperated cataracts remain a leading cause of blindness).

Previous studies comparing managed care and traditional care have shown that HMO's reduce cost by restricting access to expensive surgery. **Jonathan Javit** of the Cleveland Clinic says, "The most important conclusion to draw is that managed care has the ability to alter healthcare delivery patterns. It may be good, it may be bad or it may be both."

**Balance-Billing Law**

In June, AMA president **Daniel H. Johnson Jr.** said, "the government does not seem to have any interest in solving the Medicare cost problem." The 475 member AMA House of Delegates passed a resolution saying, they would declare the reimbursement system "unworkable and intolerable" and would lobby for a "balance-billing law" if the doctors don't get relief from fee cuts under proposed Medicare changes. Medicare fees have been cut so many times that for some services, doctors are paid less than what the treatment costs.

**Advertiser Editorial re Physician Assisted Suicide (Excerpts therefrom)**

"Our view (as stated before) is that this is yet another matter where less state involvement is better than none. Ultimately, as with abortion, it is a decision that should be arrived at between patient and physician, should the state grant such decision making."

"The governor's panel has been holding public hearings around the Islands and will issue its report in time for legislative consideration next year, then it is time for the people of Hawaii to speak out on what course we will take."

**Historically:** Oregon voters twice approved physician assisted suicide but the Federal government warned that MD's risk license suspension.

**June 1996:** The Supreme Court ruled: "There is no constitutional right to die" thus passing the issue back to the States.

**Justice Rehnquist wrote:** "Throughout the nation, Americans are engaged in an earnest and profound debate about the morality, legality and practicality of physician-assisted suicide. Our holding permits this debate to continue, as it should in a democratic society."

**Medical Tidbits**

A recent study by **Robert H. Knopp**, U. of Washington School of Medicine professor and director of the Northwest Lipid Research Clinic reveals that moderate-fat diets are just as effective as ultra low fat diets in reducing high cholesterol levels in men. The Seattle study involved 444 male employees of the Boeing Co. who had elevated LDL's (*JAMA Nov. '77*)

**Question:** Does glucosamine work on cartilage and joint problems?

**Answer:** Recently the Medical Letter, a very conservative professional journal reports that oral glucosamine sulfate has a beneficial effect on inflammation, mechanical arthritis and immunological reactive arthritis. And might be effective in short term use for arthritis pain. It cautioned that the purity of the preparations available commercially has not been established. (*Dr Fitness - Chet Nirenberg*).

### Conference Notes

Update on Oral Contraceptives  
Notes from *Thomas Kosasa's* Lecture to primary care physicians at Kyoya, Nov. 6

### Historical:

Medline has 17,000 papers on OC's since 1966. WHO goals: Maximize contraception and minimize side effects. There has been a steady decline in estrogen dosage from 150mcg to 20 mcg. Reduction in progesterone has lowered the risk of strokes and thromboembolic events. OC's are over the counter in Europe. US will follow.

### re Progesterone: 1st and 2nd generations:

1st generation: caused hirsutism, other androgenic effects; and weight gain. 2nd generation: even clears acne.

### OC's:

- Reduced endometrial CA by 50%

- Reduced ovarian Ca 40 to 80%
- Reduces ectopic pregnancies
- Reduces PID's  
(1 million cases/yr to 250,000 cases)
- Reduces loss of bone density
- Reduces acne and weight gain

### OC and Disease states:

- OC in diabetics: prevents vascular complications.
- OC in cardiovascular disease: Not contraindicated; compatible in HTN
- OC in coagulation disorders. Not contraindicated
- OC in SLE. Not contraindicated
- OC and breast Ca: No increase in breast Ca with OC; but OC contraindicated in personal history of breast Ca.

### Smoking and OC: Relative risk of MI

- Smoking/and OC: +30.0%
- Smoking/no OC: +8.7%
- OC/no smoking: +1.1%

### Environmental Hazards

A city circuit court jury had awarded \$3.5 million to a retired Bethlehem Steel Corp worker who was exposed to asbestos and his wife.

(*Baltimore Sun*)

The Pope and President Clinton died within minutes of each other. Through some computer glitch, the President arrived at the Pearly Gates and the Pope ended up in Hell. It took 24-hours for the error to be corrected. When the Pope finally arrived at the Pearly Gates, he asked to see the Virgin Mary. St. Peter remorsefully reported, "Sorry Pope, but you are 24-hours too late."

As told by our favorite humorist John Spangler

### Miscellany

Ron Lichter's Favorite:

A OB-Gyn man tired of the hassle with HMO's retired early. His hobby was tinkering with cars, so he enrolled in an automotive repair school. At the end of the first semester, the instructor gave him a 150% score for engine repair. He was happy with his grade, but puzzled. The instructor explained, "I gave you 50% for taking the engine apart and another 50% for reassembling the engine. I gave you a final 50% for reassembling the engine through the muffler."

### Poem—

### Transformation

Suited white, badged, freshly squeezed,  
He enters a ward, smiling bright, MD  
His hair recedes, sinewed forehead bulges,  
Shining, well polished, well used.  
Shaken to rest, badge removed,  
He looks up at fresh badges and pursuit.  
Confounded, he smiles.

Anand Pathak, Harvard Univ.

## Classified Notices

To place a classified notice:

HMA members.—Please send a signed and type-written ad to the HMA office. As a benefit of membership, HMA members may place a complimentary one-time classified ad in HMJ as space is available.

Nonmembers.—Please call 536-7702 for a non-member form. Rates are \$1.50 a word with a minimum of 20 words or \$30. Not commissionable. Payment must accompany written order.

## Office Space

**Pearlridge Office Center.**—800 sq. ft. available Tuesday and Friday mornings. Wednesday and Thursday afternoons. Call 487-1559.

**Office Space Wanted.**—Minimum 1200 sq. ft., w/c access, within 5 miles town. Gary 595-8186.

**Hilo.**—Fee simple condo units in Medical Bldg to include a Surgicenter. For details call (808) 961-2881.

## For Sale

**Misc for Sale.**—Desk 60" x 30" \$50.; Credenza 71" x 18" \$100, Xerox Model 5309, 1 yr old, \$525. Ask for Nelson 536-7702.

**Give-A-Way.**—Burroughs Pegboard accounting system. Call Jean Frissell 536-0779.

**Olympus Microscope.**—With polarizing lense. Used in excellent condition. 10x18L obj. strength x4, x10, x40, x100. \$1800. Dr Susan Gilbert. Hilo (808) 961-3371.

## Wanted

**Wanted.**—One used electric OR table and chair in good condition, and one headlight. Please call Coleen at 599-4755 or fax info to 599-5397.


## Misc.

**Latex Glove Relief.**—Latex glove sensitivity protectant spray, immediate reduction of Type I irritation from latex gloves, duration 100+ hand washes/4/8/16 hrs. Free evaluation sample to USA/APO address physicians. **Limited time, 1 sample per office.** Sahara Cosmetics, (808) 735-8081, PO Box 10869, Honolulu, Hawaii 96816-0869, USA, leave name on answering machine or send letterhead or business card to above address.

**Volunteer Training with Hospice Hawaii.**—20-hr course at Hospice Hawaii office. **March:** Wed, March 18, 6 to 10 pm. Sat., March 21, 8 am to 5 pm. Sat. March 28, 8 am to 5 pm. **June:** Wednesday, June 17, 6 to 10 pm. Sat., June 20, 8 am to 5 pm. Sat., June 27, 8 am to 5 pm. For more information call 924-9255 ext. 219. Weekday volunteers are especially needed.

**Catholic Charities.**—Donate your car to Catholic Charities! Your gift can be used as a tax deduction. For more information call 537-6321, ext. 303.

**Big Brothers Big Sisters of Honolulu, Inc.**—Make a BIG difference. Mentor a child today! For more information call 521-3811.



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## Managed care sucks—There is no limit to how bad it can get.

The recent attempt by Hawaii Medical Service Association (HMSA) to force a frightful contract onto participating physicians was a flagrant effort to micro-manage medical care, override physician decisions, increase physician liability, neglect due process, and oblige acceptance of a handbook which HMSA could modify at will. The Hawaii Coalition for Medical Care, the Hawaii Medical Association, and the Hawaii Federation of Physicians and Dentists combined to alert the media and demand recall of the egregious document. A HMSA spokesman stated that the contract was only for discussion; an incredible explanation in view of the written threat that doctors must sign by January 1, 1998, or be decertified. Hats off and a resounding mahalo to pediatrician Arleen Myers MD who spearheaded the Coalition and provided the spark to ignite the joint effort. The lesson for organized medicine is that third parties who plan manipulative or abusive modifications in medical care, rarely respond to physicians' complaints, but react promptly when the media and public become informed. It is all too obvious that doctors must speak together, speak loudly, and speak to the public.

## It ain't braggin' if you can do it. *Dizzy Dean.*

What effect will the KeraVision Ring have on laser refractive surgery once the procedure is approved and marketed? A relatively inexpensive device for moderate degrees of myopia which produces reversible changes when the ring is removed, could have a major impact on high tech operations requiring expensive, complex lasers. Presumably, the ring can be inserted in any surgical setting. European investigations and U.S. phase II clinical studies are parallel with 97% achieving at least 20/40 acuity, and 47% of 113 patients had better than 20/20 vision. Present studies are limited to 3.5 diopters of refractive error with plans in phase III to go to 5 diopters.

## I'm in favor of letting the status quo stay just as it is.

Legislators in Illinois recently attempted to provide the public with information on physicians' malpractice and disciplinary histories. The bill would have made information available via a toll-free number. The current law allows such data for the confidential use of the state's medical disciplinary board. The Illinois State Medical Society argued successfully that such a change would strip them of their confidentiality protections. Meanwhile, in Florida similar information went on the World Wide Web where some 5,300 downloads and 1,000 phone calls occurred in the first two days alone. Obviously, public interest is high, so our Hawaii Medical Association must keep a watchful eye on any similar proposals at the Legislature.

## The difference between genius and stupidity is that genius has limits.

While the media is joyously dancing around the nursery of the seven McCaughey newborns, (sensational news has been slow since the death of Diana) one has to wonder about the societal ethics of artificially generated multiple births in this obviously crowded world. The mother already had one child. Now we are graced with heartwarming daily stories of community largesse, including everything from a new home to a 12 passenger van, hourly television reports from the newborn intensive care unit, and a father, smiling broadly and talking about the "gifts from God." But wait, you ask, where were the newspeople and all the charitable donations last year when six babies (five survived) were born to a couple of slightly more skin pigmentation? And what about the prospects of retinopathy, mental retardation, and pulmonary disorders in these frail premies? And should we be celebrating?

## How good are these compulsory air bags, anyway?

Over one year ago the federal government first proposed that auto owners be allowed to disconnect air bags. In the intervening year, 34 adults and children have been killed by air bags. Almost all of the drivers were short women and many were wearing seat belts, and the same was noted for the children. Safety advocates and the auto industry are pressing to not permit owners to take out their air bags. The argument is that if the people disconnect them, many will die in crashes which they would have survived. When first proposed, the

National Highway Traffic Safety Administration claimed they would cut fatalities by 40%. In fact, available data reveal that the increased safety figure for a belted driver with an air bag is actually 9%. According to NHTSA figures a seat belt cuts the risk of dying by 42%, and an airbag bumps that figure up to only 47%. A study published in *JAMA* claimed that air bags kill more children than they save. Moreover, in the past six years, 49 children and infants have been killed by air bags in low-speed crashes that would otherwise have left them largely unharmed. 10% of front-seat child passengers who died in head-on crashes last year were actually killed by air bags. Therefore, the current rules for crash protection can be summarized as follows:—wear a seat belt—belt children in a rear seat—wrap 4000 lbs of Detroit steel around you—try not to be a short female.

## Sometimes your best buys are the ones you don't make.

Five mile per hour crashes are not much, one would think. In controlled testing, the Lincoln Continental had zero dollar damage to the front and \$16 to the rear, but the Mercedes Benz E-420 suffered \$372 to the front and \$1066 in a rear collision test. The Lexus LS 400 front end repair at 5 MPH crash amounted to \$748, so it is apparent that some luxury automakers favor style over crash performance.

## To err is human, but when the eraser wears out before the pencil, you are overdoing it.

A mystery has occurred at the U.S. Treasury. Recent evaluation of tax coffers has shown an extra \$46 billion beyond projections. The embarrassed bean counters cannot explain how this money, which largely accounts for the shrinking deficit, ended up in the Treasury! Deficit projections by the Congressional Budget Office (CBO) in March estimated a figure of \$124 billion, which has turned out to be an error of \$101 billion! Supposedly, \$55 billion of the windfall can be explained by a boon from the humming economy and a break from health cost inflation, but that still leaves \$46 billion which the Treasury and the CBO cannot account for. Is this a none-time event or an ongoing increase in revenue? The answer will eventually emerge, possibly next summer, and the hunch is that it is related to the stock market. Back at the White House, the administration is taking bows for the smallest deficit since 1972.

## Only change is permanent.

The medical financial crunch is being felt in the big apple where New York Medical Center and Mt. Sinai Medical Center will merge. The two elite institutions were supposed to combine last spring, but efforts have collapsed due to bitter dissent by doctors. The trustees are pressing for the merger, stating that the advantages for the two hospitals are undeniable. The hostility generates from the passions of medical academia. The unity is supposed to involve only the two hospitals, and not the medical schools, but doctors at NYU fear this is the first step toward fusing their cherished medical school as well. They warn that NYU is about to be controlled by the "czar" of Mt. Sinai, Dr Jack Rowe. Trustee Laurence Tisch (once CEO of CBS) says, "Nonsense. There will always be an NYU Medical School." However, the NYU physicians have formed an opposition group, raised \$40,000 and plan to mount a legal campaign. Hell hath no fury like a professor who's tenure is threatened.

## A thing of beauty is a joy forever. *Keats.*

Every surgeon should know that barbers a century ago were much more versatile, and cutting hair was only one function. Many kinds of surgery were performed, and when the barbers finished, they hung blood soaked towels outside on a pole to dry. As the wind whipped the towels dry, they wrapped around the pole producing the striped pole design which remains to this day.

## Addenda—

- ❖ Percentage of unplanned teenage pregnancies 60-70%; percentage of unplanned pregnancy in women in their 40's 60-70%.
- ❖ Ye shall know the truth, and the truth shall make you mad.
- ❖ Where do you get virgin wool? From ugly sheep.

Aloha and Keep the faith.—rts ■

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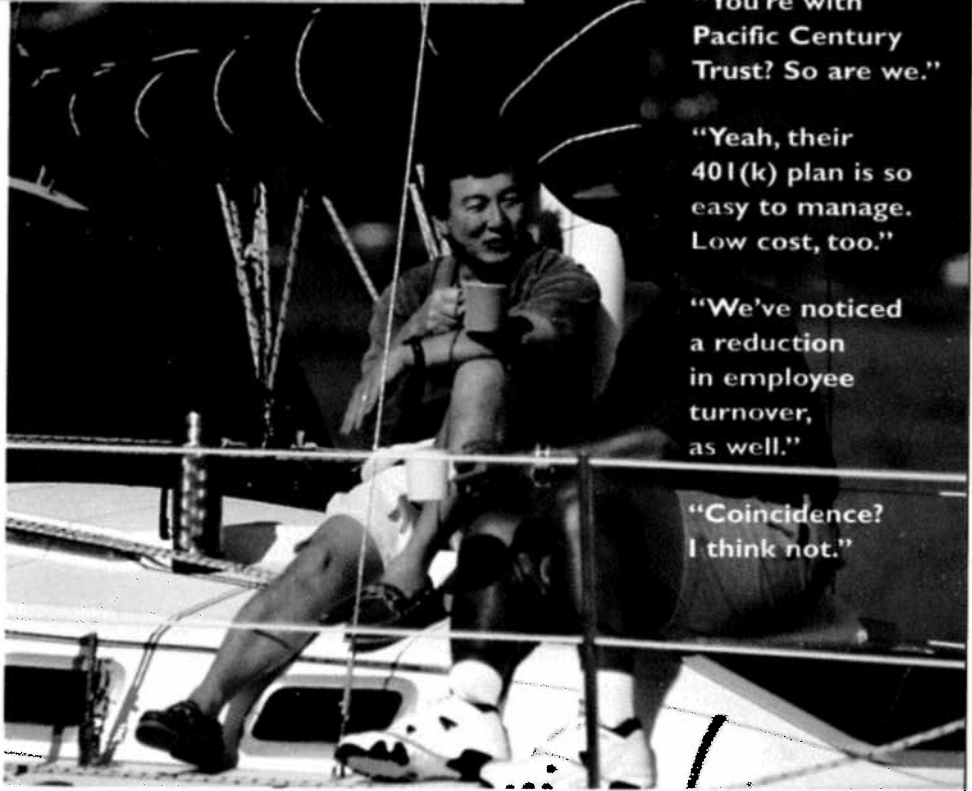
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