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Halau Wa’a

A scene depicting a typical Hawaiian canoe shed or “Halau Wa’a.”
Editorial

Norman Goldstein MD
Editor, Hawaii Medical Journal

Of Mice and Mongooses...

Yes, mongooses is correct, but mongeese is also acceptable. The term mongoose first appeared in English literature in 1698, adapted from the Hindu term “mangusa.”

This monumental manuscript on leptospirosis by Middleton, Ansdell and Sasaki will be a valuable paper of interest to a wide variety of readers, including historians, clinicians, veterinarians, public health authorities, parasitologists, as well as for the recreational public involved in swimming, hiking, and camping in Hawaii. Leptospirosis is an expensive disease, sometimes fatal, and often requiring prolonged patient care.

It is a superb review of the history and present problem of leptospirosis in Hawaii. The authors dedicated the manuscript to Henri Minette, DrPH (1916-2001), who worked for the Hawaii State Department of Health for 56 years. It also serves as a testimonial to the subsequent directors of the Department of Health, including the present Director, Bruce Anderson, and their staffs. Medical progress is being made right here in Hawaii.

Mahalo to medical student Charles Middleton and Drs. Ansdell and Sasaki for their contributions to local residents and visitors alike.

HIPAA - Here We Come!
Practical information about your practice

If you were unable to attend the HMA General Meeting on June 1, 2001, you missed a great deal of important information about your practice.

Susan Forbes PhD, Executive Director of the Hawaii Health Information Corporation, provided participants with news concerning the Health Insurance Portability and Accountability Act.

Dr. Forbes reviewed the Federal Standards for Privacy of Patient Health Information. Because this topic pertains to consent/authorization forms, medical records, billing for insurance purposes, etc., you and your staff must by law be aware of these HIPAA regulations for insurance purposes.

The Journal will publish her presentation in an upcoming issue of the HMJ.

We Need Your Biography

Even if it is not up to date, send us your bio/resume. We are all usually too busy to have a truly current bio or resume, but send Dr. Ann Catts what you have available now. You can always update it later.

Many thanks to Ann and the staff at the Mamiya History Center at the Hawaii Medical Library for their efforts in getting and keeping biographical data of physicians in Hawaii.

Ask your spouse, your office manager or your secretary to send your biography (a form is also provided on the pp. 177-178 for your use.)

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BRIEF SUMMARY
47002; Issued: December 2000

Protopic® (tacrolimus)

Ointment 0.03% Ointment 0.1%

FOR DERMATOLOGIC USE ONLY NOT FOR OPHTHALMIC USE

INDICATIONS AND USAGE:
Protopic Ointment, 0.03% and 0.1%, is indicated for topical treatment of atopic dermatitis. Before commencing treatment with Protopic Ointment, clinical ointments at treatment sites should be cleared.

With atopic dermatitis are predisposed to superficial skin infections including eczema herpeticum (Kaposi's varicelliform eruption), treatment with Protopic Ointment may be associated with an increased risk of ensuing vaccinia virus infection (chicken pox or shingles), herpes simplex virus infection, or eczema herpeticum. In the presence of these infections, the balance of risks and benefits associated with Protopic Ointment use should be evaluated.

In clinical studies, 33 cases of lymphadenopathy (0.6%) were reported and were usually related to infections (partly of the skin) or to reactions to appropriate antifungal therapy. Of these 33 cases, the majority had either a sterile or a known to be positive response to infection. Transplant recipients receiving immunosuppressive regimens (e.g., systemic tacrolimus) are at increased risk for developing lymphoma, therefore, patients who receive Protopic Ointment and who develop lymphadenopathy should have a thorough evaluation of their lymphadenopathy investigated. In the absence of a clear etiology for the syndrome, or of evidence of superimposed infection, lymphadenopathy should be observed and discontinuation of Protopic Ointment be considered. Patients who develop lymphadenopathy should be monitored to ensure that the lymphadenopathy resolves. The enhancement of ulcerative colitis—carcinogenesis is not necessarily dependent on potentially toxic mechanisms. Despite the absence of observed photo toxicity in humans (see ADVERSE REACTIONS), Protopic Ointment shortened the time to skin tumor formation in animal photocarcinogenesis study (see Carcinogenesis, Mutagenesis, Impairment of Fertility). Therefore, it is prudent for patients to minimize or avoid exposure to natural or artificial sunlight exposure.

The use of Protopic Ointment may cause local skin reactions such as skin burning, crustation, itching, or pruritus. Localized symptoms are most common during the first few days of Protopic Ointment treatment and typically improve as the lesions of atopic dermatitis heal. With Protopic Ointment 0.1%, 30% of the skin burning events had a duration between 2 minutes and 3 hours (median 15 minutes) and the pruritus events had a duration between 3 minutes and 10 hours (median 20 minutes). The use of Protopic Ointment in patients with Netherton Syndrome is not recommended due to the potential for increased systemic absorption of tacrolimus. The safety of Protopic Ointment has not been established in patients with generalized epidermolysis.

Information for Patients

(See patient package insert)

Patients using Protopic Ointment should receive the following information and instructions:

1. Patients should use Protopic Ointment as directed by the physician. Protopic Ointment is for external use only. As with any topical medication, patients should wash their hands after application if hands are not an area for treatment.

2. Patients should not minimize or avoid exposure to natural or artificial sunlight (tanning beds or UVAB treatment) while using Protopic Ointment.

3. Patients should not use this medication for any disorder other than that for which it was prescribed.

4. Patients should report any signs of adverse reactions to their physician.

5. Before applying Protopic Ointment after a bath or shower, be sure your skin is completely dry.

Drug Interactions

Formal topical drug interaction studies with Protopic Ointment have not been conducted. Based on its minimal extent of absorption, interactions with Protopic Ointment with systematically administered drugs are unlikely to occur but cannot be ruled out. The concomitant administration of known CYP3A4 inhibitors in patients with atopic dermatitis may lead to increased tacrolimus and the adverse reactions should be done with caution. Some examples of such drugs are: immunosuppressants, macrolides, quinolones; amphotericin B, fluconazole, clarithromycin, and ciclosporin.

Carcinogenesis, Mutagenesis, Impairment of Fertility

No evidence of genotoxicity was seen in bacterial (Sarcoma and E. coli) or mammalian (Chinese hamster lung-derived cells) in vitro assays of mutation. Protopic Ointment did not induce point mutations; in vivo clastogenic assay was performed in mice. Tarcrolimus did not cause uninduced DNA synthesis in rat hepatocytes.

Reproductive toxicology studies were not performed with topical tacrolimus.

Pregnancy:

Teratogenic Effects: Pregnancy Category C

There are no adequate and well-controlled studies of topicaly administered tacrolimus in pregnant women. The experience with PROTOPIC Ointment when used by pregnant women is too limited to permit assessment of the safety of its use during pregnancy.

There are no adequate and well-controlled studies of systematically administered tacrolimus in pregnant women. Tacrolimus is transplanted across the placenta. The use of systematically administered tacrolimus during pregnancy has been associated with neonatal hyperekplexias and renal insufficiency. It is not known whether Protopic Ointment used during pregnancy only if the potential benefit to the mother justifies a potential risk to the fetus.

Nursing Mothers

Although lack of absorption of tacrolimus following topical applications of PROTOPIC Ointment is minimal relative to systemic administration, it is known that tacrolimus is excised in human milk. Because of the potential for serious adverse reactions in nursing infants from tacrolimus, a decision should be made whether to discontinue nursing or to discontinue the drug, taking into account the importance of the drug to the mother.

Pediatric Use

PROTOPIC Ointment 0.03% may be used in pediatric patients 2 years of age and older. Two phase 5 pediatric studies were conducted involving 666 patients aged 6 to 11 years of age 12 week randomized vehicle-controlled study and one open-label, 1-year, long-term safety study. The H1 and H50 (50%) of these patients were 2 to 6 years of age.

The most common adverse events associated with PROTOPIC Ointment application in children were skin burning and pruritus (see ADVERSE REACTIONS). In addition to skin burning and pruritus, the incidence of adverse events of 5% or more was 2.4% (mostly chicken pox) and vesiculobul find more frequent in patients treated with PROTOPIC 0.03% compared to vehicle. In the long-term 1-year safety study involving 255 pediatric patients using PROTOPIC Ointment, the incidence of adverse events, including infections, did not increase with increased duration of study drug exposure or amount of ointment used. In 491 pediatric patients treated with PROTOPIC Ointment, 36.0% developed eczema herpeticum. The incidence of adverse events associated with PROTOPIC Ointment have not been established in pediatric patients before 3 years of age. Its use in this age group is not recommended.

Geriatric Use

Twenty-five (25%) patients 65 years old received PROTOPIC Ointment in phase 3 studies. The adverse event profile for these patients was consistent with that for other adult patients.

ADVERSE REACTIONS:

No phototoxicity and no photopotentiation was detected in clinical studies of 12 and 24 normal volunteers, respectively. One out of 118 normal volunteers showed evidence of sensitization in a contact sensitization study.

In three randomized vehicle-controlled studies and two long-term safety studies, 665 and 531 patients respectively, were treated with PROTOPIC Ointment.

The following table depicts the adjusted incidence of adverse events pooled across the 3 identically designed 12-week studies for patients in vehicle, PROTOPIC Ointment 0.03%, and PROTOPIC Ointment 0.1% treatment groups and the unadjusted incidence of adverse events in two year long-term safety studies, regardless of relationship to study drug.

Incidence Of Treatment Emergent Adverse Events

| Event | Adult | Pediatric | p value
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Skin Burning</td>
<td>25</td>
<td>50</td>
<td>20</td>
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<tr>
<td>Pruritus</td>
<td>20</td>
<td>40</td>
<td>20</td>
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<tr>
<td>Fluconazole</td>
<td>20</td>
<td>40</td>
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</tr>
<tr>
<td>Malaria</td>
<td>20</td>
<td>40</td>
<td>20</td>
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<tr>
<td>Skin Erythema</td>
<td>20</td>
<td>40</td>
<td>20</td>
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<tr>
<td>Hemorrhage</td>
<td>20</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Skin Infection</td>
<td>20</td>
<td>40</td>
<td>20</td>
</tr>
<tr>
<td>Fever</td>
<td>20</td>
<td>40</td>
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<tr>
<td>Injection</td>
<td>20</td>
<td>40</td>
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<td>Cough Increase</td>
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<tr>
<td>Asthma</td>
<td>20</td>
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<tr>
<td>Nephritis</td>
<td>20</td>
<td>40</td>
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<tr>
<td>Eczema Herpeticum</td>
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<td>20</td>
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<tr>
<td>Pharyngitis</td>
<td>20</td>
<td>40</td>
<td>20</td>
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<tr>
<td>Intestinal Infection</td>
<td>20</td>
<td>40</td>
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<tr>
<td>Purulent</td>
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<td>20</td>
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<tr>
<td>Nephritis</td>
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<tr>
<td>Proteinuria</td>
<td>20</td>
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OVERDOSAGE

PROTOPIC Ointment is not for oral use. Oral ingestion of PROTOPIC Ointment may lead to adverse effects associated with systemic administration of tacrolimus. If oral ingestion occurs, medical advice should be sought.

DOSAGE AND ADMINISTRATION:

ADULT PROTOPIC Ointment 0.03% and 0.1%

Apply a thin layer of PROTOPIC Ointment 0.03% or 0.1% to the affected skin areas twice daily and rub in gently and completely. Treatment should be continued for one week after clearing of signs and symptoms of atopic dermatitis. The safety of PROTOPIC Ointment under occlusion which may predispose systemic ocular exposure to tacrolimus 0.03% and 0.1% should not be used with occlusive dressings.

PEdiATRIC PROTOPIC Ointment 0.03%

Apply a thin layer of PROTOPIC Ointment 0.03% to the affected skin areas twice daily and rub in gently and completely. Treatment should be continued for one week after clearing of signs and symptoms of atopic dermatitis. The safety of PROTOPIC Ointment under occlusion which may predispose systemic ocular exposure to tacrolimus 0.03% and 0.1% should not be used with occlusive dressings.

Rx only
Hawaii Physician's Biography

Name ____________________________________________

Background:
Date of birth ___________________________ Place of birth ___________________________

Parent’s Name ___________________________

Siblings or other relatives if of special interest:
__________________________________________________________________________________________

Education:

Elementary school ___________________________

College/universities ___________________________

Postgraduate training ___________________________

Medical Training:
Medical School ___________________________
    Internship ___________________________
    Institution ___________________________
Residency ___________________________
    Institutions ___________________________
Postgraduate training ___________________________
    Institutions ___________________________

Medical Career:
Private practice: Years/locations ___________________________

Affiliations: Institutions/years/locations ___________________________

Special positions: Institutions/years/locations ___________________________

Medical Society memberships ___________________________

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<table>
<thead>
<tr>
<th>Specialty Boards</th>
<th>Year</th>
<th>Year</th>
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<tr>
<td>Licenses held:</td>
<td>Locations</td>
<td>Years</td>
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<tr>
<td>If retired, year of retirement</td>
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</table>

**Community Services:**

Organizations: names / years / positions held / locations / political / fraternal / civic and/or social

|                                     |
|                                     |
|                                     |

**Honors and Awards:**

Organizations: type / year / purpose of recognition

|                                     |
|                                     |
|                                     |

**Personal:**

Marriage/ marriages: name of spouse / date and place of wedding

|                                     |
|                                     |

Children: names and, in case of married daughters, husband's full name

|                                     |
|                                     |
|                                     |

**Special Interests:**

Hobbies

|                                     |
|                                     |

Talents other than medical

|                                     |
|                                     |

If deceased:

Date / place

Survivors

|                                     |
|                                     |

Return to:
Hawaii Physician’s Biography
Ann B. Catts MD
Hawaii Medical Library
1221 Punchbowl Street
Honolulu, HI 96813
Of Mice and Mongooses...
A History of Leptospirosis Research in Hawaii


Abstract
A history of leptospirosis research in Hawaii is presented, beginning with the first published work in 1937. This account traces the leading researchers who described the organism and the disease, the diagnostic tests developed and used, the reservoir animals identified, methods of disease transmission discovered, prevention programs developed in the state, and research into more effective disease detection and prevention.

Introduction
Leptospirosis was first reported in Hawaii in 1907 in sugar cane workers. Since that time, it has been recognized in a wide range of agricultural workers, most recently in taro farmers. Over the past 50 years, it has been increasingly recognized as a recreational disease related to activities such as hiking, swimming, freshwater fishing and kayaking. Infection is caused by Leptospira interrogans, a coiled spirochete that is spread by environmental contamination of the urine of infected animals.

In Hawaii, wild animals such as rats, mice, and mongooses are the primary reservoirs of infection, harboring organisms in their kidneys and shedding them in their urine. Domestic animals, particularly dogs, and farm animals such as cattle and swine, are also important reservoirs of infection in residential and agricultural environments. This article highlights some of the extensive local research conducted over the past 60 years and emphasizes community educational programs to better understand and control this very important infectious disease.

Early Recognition of the Disease
Illnesses resembling leptospirosis have been described since ancient times. Castiglioni1 quoted the famous Greek physician Hippocrates on a disease that possibly was leptospirosis: "When jaundice supervenes in fevers before the seventh day, it is a bad symptom, unless there be watery discharges from the bowels." In ancient China, rice harvest jaundice ("wei ni" and "lo ya goz fe") probably referred to leptospirosis. Similarly, in ancient Japan, 7-day fever ("odan-eki") and autumn fever ("aki yami") were names given to illnesses resembling leptospirosis.2

The first detailed clinical accounts of illness resembling leptospirosis were in the early 19th century. Larrey3 described an illness with fever and jaundice ("fièvre jaune") among Napoleon's troops during the siege of Cairo in 1800. This was probably leptospirosis. An early study of the disease was made by Adolf Weil, who named it "Infectious Jaundice" in a paper published in a German medical journal in 1886.4 Two years later another German researcher, Fiedler, named it "Weil’s Disease." Subsequently, physicians around the world referred to icteric leptospirosis as "Weil’s Disease."

In 1914, Inada et al.5 made the important discovery of the causative organism of this disease. Noguchi in 1918 described the organism as being 6 to 20 microns long and 0.1 to 0.2 microns wide, a fine tightly wound spiral enclosing an axial filament, and noted that it was rapidly motile. The rat was the most recognized reservoir, but other species such as foxes, cats, pigs, horses, dogs and gophers were also identified as carriers.

Early Research in Hawaii
Leptospirosis was first recognized in Hawaii in sugar cane workers. The earliest medical reports were from plantation doctors. The first death attributed to Weil’s Disease was reported to the Territorial Department of Health in 1907.6 The Department of Health included leptospirosis as a reportable disease in the 1930’s. Throughout the 1950’s, however, the disease was reportable as “Weil’s Disease,” and not leptospirosis. For this period, the incidence was probably grossly understated as, currently, only about 25% of cases would fit the description of Weil’s disease (febrile illness with jaundice).

Joseph E. Alicata, a parasitologist at the University of Hawaii, developed a diagnostic test for leptospirosis and was the first to detect the bacteria in animals and humans in Hawaii. He defined the epidemiology of leptospirosis among sugar workers on the island of Hawaii and in residents of Honolulu.

Early Studies in Humans
In 1937, Alicata published a case report documenting leptospirosis in a patient on the island of Hawaii.7 Physician Thomas Keay from Pepe‘ekeo Hospital, sent him a patient’s urine sample which he inoculated into a guinea pig. Alicata subsequently identified the organism from kidney sections of the animal. In the same paper Fred Irwin described the treatment used at the time, which included administration of convalescent sera from recovered cases, or repeated blood transfusions. Prophylaxis consisted of sterilizing the...
fecal and urinary discharges of patients, and “waging war against the rat.” In 1939, James Enright and Eric Fennell described Weil’s Disease in a case report presented to the Sixth Pacific Science Congress. In the first human serosurvy in 1943, Alicata and Virginia Breaks reported a 3.8% prevalence among 344 residents of urban Honolulu.

Discovery of Animal Reservoirs
Noguchi observed that many wild and domestic animals were thought to be reservoirs of leptospires in Asia. Alicata showed that this new occupational health risk was carried by rats and mongooses on the island of Hawaii. He also discovered that kidney cultures were more sensitive in detecting rodent infections than serology; but in mongooses, serology was more sensitive than culture for diagnosis of leptospirosis. In 1942, Alicata and Breaks identified dogs (20% prevalence of 100 tested) in Honolulu as a reservoir of leptospirosis. In 1943, Alicata developed a vaccine for dogs using formalized antigens. The early field studies in Hawaii were the beginning of an extensive series of investigations into transmission cycles involving various reservoir animals, fresh water and soil, and ultimately, humans.

Early Diagnostic Test Development
Alicata in 1942 published “The Diagnosis of Leptospirosis” in Plantation Health, describing clinical symptoms and laboratory findings in patients diagnosed serologically by the newly developed microscopic agglutination test (MAT).

Understanding Clinical and Epidemiologic Aspects of Leptospirosis: 1944-1986
Alicata’s and Enright’s early work increased the concern about the disease in the medical community in Hawaii. During this period, the most prominent researcher was Henri Minette, Administrator of the Department of Health (DOH) laboratory in Hilo. In addition to developing a leptospirosis diagnostic laboratory in Hilo, he was involved in many animal and human surveys. With Bruce S. Anderson, he published an important historical summary of studies conducted in Hawaii through 1984. From the review of cases associated with sugar plantations, the need for better diagnostic tests and the scope of environmental sources of infection were addressed. In 1979, a DOH advisory committee was formed under the direction of Robert Melton, the Kauai District Health Officer, following two fatalities on the island in the late 1970’s, including an aquaculture farmer in 1978. In the same year, a fatal case occurred in an aquaculture farmer on Oahu. At the time, current Director of Health Bruce S. Anderson was very interested in this new industry. He enrolled in a Ph.D. program at the University of Hawaii School of Public Health to study the epidemiology of leptospirosis in aquaculture and taro farmers under Professor of Epidemiology, Robert Worth. Anderson’s studies were subsequently published by the DOH.

Human Case Studies
In 1944, Alicata reported a 12.2% prevalence among 860 plantation workers tested on the island of Hawaii. In the same year H. M. Patterson published a clinical review entitled “Weil’s Disease, A Report of Thirty Seven Cases.” Three years later he published a larger review of 61 cases in the Journal of the American Medical Association. These studies, carried out at Ola’a Hospital on the island of Hawaii, were based on cases among cane-cutters of Filipino and Japanese ancestry from Ola’a Plantation. He described the patients with Weil’s Disease as “desperately ill” and unresponsive to sulfonamide compounds. He tried a second treatment consisting of blood transfusions from patients with prior infections. The patients responded dramatically and recovered. He also tried a third treatment, a new antibiotic — penicillin — on the last six patients in this series. It proved efficacious, leading to the rapid recovery of all six cases.

In 1977 W. A. Shrader reviewed 19 cases admitted to Honoka’a Hospital on Hawaii from 1962-1965. He noted that many of the cases had been treated on an out-patient basis, indicating that there were mild forms of the disease that were often self-limiting. He also observed that the illness occurred in two phases, an early septicemic phase followed by a secondary immune phase.

In 1980, Mary Serdula, a U.S. Centers for Disease Control (CDC) Epidemic Intelligence Service Officer assigned to Hawaii, conducted a survey of people who lived and/or worked in Waipi’o valley on the island of Hawaii (unpublished data). Of 82 people sampled, 26 (32%) had significant MAT (≥1:200) titers. Taro farmers who did not live in the valley and residents of the valley who did not farm taro were identified as being at risk for the disease. This study also identified a hyperendemic geographic area, which continues to be a high risk location for people who live and work there.

Anderson and Minette reviewed 556 cases that were reported between 1936 and 1984: 398 on Hawaii, 82 on Oahu, 53 on Kauai, 15 from Molokai and Lanai, and 8 from Maui. Case distribution by island has since changed; Kauai currently reports the second highest number of cases in the State and the highest incidence. Included in the review were surveys conducted by Anderson, James Brock, Harry Higa, John Gooch, Ned Wiebenga, Nicholas Palumbo, Sam Perri and Vernon Sato on aquaculture farmers, as part of Anderson’s Ph.D. thesis. He found an overall prevalence of 18.7% among 123 freshwater aquaculture farmers sampled statewide, documented a statistically-significant risk of exposure in aquaculture farmers on Oahu, and an extremely high annual incidence of 2.5/1000 prawn farmers. Anderson, Higa, Brock, Serdula, Gooch, Wiebenga, Palumbo, and Minette identified a statewide prevalence of 60% in 55 taro farmers sampled, and in four of five watercress farmers tested, documenting a high risk of infection for those engaged in freshwater occupations.

In 1984, State public health veterinarian David M. Sasaki, did his University of Hawaii Master of Public Health field work project at the CDC in Atlanta, Georgia. He conducted a descriptive epidemiologic analysis comparing cases of leptospirosis reported nationwide with those reported from Hawaii for the five years from 1979 to 1983. During that time, Hawaii accounted for 22% (118/525) of the cases reported nationally and had an incidence 50 times higher than the rest of the country.

Animal Surveys
In 1947 Alicata detected antibody titers in swine, identifying the animals as a reservoir and potential source of infection to humans. During this 43 year period, there were at least sixteen field studies of leptospires in feral reservoir animals. The primary species tested...
in most of these studies were rats, including the Norway rat (R. norvegicus), the Roof rat (R. rattus), the Polynesian rat (R. exulans). The house mouse Mus domesticus, and the mongoose (Herpestes auropunctatus) were also frequently sampled. Anderson and Minette summarized the data from the studies by island, species, number of animals tested and the percent positive, 7,645 small feral mammals were trapped and tested for leptospirosis during the 40-year period. Composite results for each species showed R. norvegicus with a 30% prevalence, R. rattus, 23.6%; R. exulans, 17%; and H. auropunctatus with 29%. The island of Hawaii, because of the earlier recognition of leptospirosis in plantation workers and the presence of Minette’s diagnostic laboratory, was the most actively investigated, accounting for 70% of the animals tested. 1,877 animals were tested on Oahu, and 332 on Maui. Minette’s 1964 and Marie Shimizu’s 1984 studies described the largest surveys. An increased academic interest in the epidemiology of leptospirosis resulted in other animal studies. They included the aforementioned studies by Anderson et al., who also examined rodent infection rates on aquaculture and taro farms, and Masters of Public Health student field work projects by Alan Zahn and Peter Yan.

Gary F. Beck’s Master of Public Health field work project in 1977 studied feral swine in Waimalu Valley on the island of Hawaii. A 41% prevalence from 17 feral pigs sampled showed that feral swine were reservoirs of the disease.

Between 1983 and 1985, the State Department of Agriculture (DOA) in conjunction with the Southeastern Cooperative Wildlife Disease Study from the University of Georgia, conducted a survey of feral swine. In 1983, a 28% prevalence was noted from 134 animals sampled from the island of Hawaii. In the same year, an 82% prevalence was found in 56 samples from Molokai. In 1985, a 20% prevalence was noted in 10 samples from Maui. The samples were tested with the MAT.

**Diagnostic Test Study**

In 1945, Minette published a “A modified technique for reading the rapid slide agglutination test for leptospirosis” in *Science*, describing his modification of that screening diagnostic test. This test was used by the DOH laboratory until 1992 when the test reagents were no longer commercially available.

**Organized Research: 1987-2001**

In 1987, then Director of Health John C. Lewin asked Sasaki to convene a committee to develop a comprehensive report, plan of action, and policy development for leptospirosis control in Hawaii. A community-based Leptospirosis Ad-Hoc Committee, sponsored by the DOH, was formed to promote community-wide participation in development of educational and control programs. State, city, federal, and private healthcare agencies have participated in the Committee from its beginning to the present. The Committee has sponsored epidemiologic and laboratory research, participated in scientific presentations at national and international meetings, published findings in peer-reviewed scientific journals, sponsored visits by internationally recognized experts, and developed a comprehensive health educational program that has gained international attention. In recent years, there has been an increased effort toward development of sensitive, rapid-screening serologic diagnostic tests for disease detection in humans through collaborations with the Royal Tropical Institute (RTI) in the Netherlands. Most of the published work on leptospirosis by local authors from this period was an outgrowth of the Ad-Hoc Committee’s activities.

**Human Studies**

The Committee’s first activity was suggested by Arnold Kauffman of the CDC to more accurately determine the incidence of the disease in the state. A one-year active surveillance study on the island of Hawaii and identification of statistically-significant risk factors for the disease were undertaken. From July 1988 through June 1989, a five-fold increase in incidence was observed as compared with the previous four years of passive surveillance. Annual incidence on the island was estimated to be 128/100,000 population. A new risk factor was also identified, use of household water catchment systems in rural areas. Results of that very important study were published in 1993 by Sasaki, Lorrin Pang, Minette, Chester Wakida, Wallace Fujimoto, Sally Jo Manea, Robert Kunioka, and Charles Middleton in the *American Journal of Tropical Medicine and Hygiene*. For her Master of Public Health field work project in 1992, Linda M. Odello compiled a database from DOH records on 404 reported cases diagnosed in the state between 1971 and 1990 and completed a descriptive epidemiologic analysis of the cases. Her report was the basis for subsequent presentations at the 1994 International Leptospirosis Meeting in Italy by Sasaki and by Vernon Ansdell at the 1995 annual meeting of the American Society for Tropical Medicine and Hygiene in San Antonio, Texas. At the 1997 annual meeting of the American Society of Tropical Medicine and Hygiene, presentations were made by Hawaii researchers as part of a symposium organized by the DOH and Kaiser Permanente entitled “Leptospirosis: A Re-emerging Disease.” Speakers included Ansdell, who presented an overview of the disease and its importance to residents in the tropics; Jeffrey Goodman, who presented “Clinical Leptospirosis in Hawaii: A practitioner’s Perspective;” and Sasaki, who presented a “Review of the Epidemiology and Prevention of Leptospirosis in Hawaii: 1992-1996.”

In the 1980s and 1990s a number of small common-source outbreaks were reported, in addition to the normal sporadic cases reported to the DOH. In 1986 two sailors swimming in Kalihi Stream in Honolulu were hospitalized with severe leptospirosis. In 1987, circumstances surrounding an outbreak involving eight teen-aged boys who swam daily for two weeks in the Waimea River on Kauai, were published by Alan R. Katz, Manea and Sasaki in the *American Journal of Public Health*. In 1991 investigation of a two case outbreak that occurred among 16 military personnel engaged in repeated recreational swimming at Kapena Falls in Nu’uanu, Oahu, was published by Katz, Sasaki, Alan Mumme, Joel Escamilla, Middleton, and Sophio Romero in *Military Medicine*. In addition to these recreational outbreaks, four outbreaks in agricultural venues were also documented: three ginger farmers in Ke’au, Hawaii, two corn farmers in Kahuku, O’ahu, two pig farmers in Wai’anae, Oahu, and two landscapers in Kapu’a, Kauai. A retrospective case review also documented multiple infections in residents. From 1977 through 1996, there were records of seven residents with multiple infections. Intervals between infections ranged from one to 10 years. Five of the seven were exposed

Continued on p. 184
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occupationally, including a taro farmer who was diagnosed with leptospirosis three times over a six-year period.

Increased numbers of recreationally-exposed cases in Hawaii over the past 50 years prompted Ansdell and Sasaki, at the 1993 annual meeting of the International Society of Travel Medicine in France, to highlight the risk of exposure for adventurous travelers to the tropics. They recommended medical counseling and prophylactic doxycycline for travelers prior to recreational activities. Considering the diagnosis of leptospirosis in returned febrile travelers, particularly from the tropics and subtropics, has often been neglected because of the broad differential diagnoses (e.g., malaria, dengue fever, typhoid fever, and typhus). In 1999 at the International Leptospirosis Society Meeting in Australia, they summarized six hospitalized cases in returned travelers diagnosed in Hawaii between 1992 and 1998. The study documented the importance of physicians maintaining a high index of suspicion for diseases such as leptospirosis in returned travelers when presenting with non-specific febrile illnesses.

In 1993, James Gollop, Katz, Raul C. Rudoy, and Sasaki published "Rat bite associated leptospirosis: An uncommon mode of transmission." This article documented the only known reported case of leptospirosis associated with animal bite transmission in Hawaii.

Animal Studies

During this period, there were no known published animal studies. However, in 1987 and 1988, the DOA conducted statewide surveys of domestic cattle and swine, with MAT testing conducted by the U.S. Department of Agriculture. A 64% prevalence was observed in 1988 from cattle on Kauai, 70% of 168 cattle tested on the island of Hawaii, 35% of 55 cattle tested on Maui, and 86.2% of 29 cattle tested on Oahu.

In 1988, a domestic swine survey showed a 74% prevalence in 222 samples from the island of Hawaii, 75% of 199 animals from Maui, 76% of 63 samples from Molokai, 63% of 79 samples from Oahu, and 45% of 49 samples tested from Kauai. Although commercial vaccines are available for swine and cattle, none of the animals tested had a history of vaccination against leptospirosis.

In addition, small samples of dogs, bison, elk, horses, sheep and mongooses from the four major islands were tested, with prevalence ranging from 50 to 100%. However, many of these animals were suspected of having the disease. The above surveys documented the presence of widespread infections in domestic and feral animals throughout the state.

Diagnostic Test Development

Important environmental diagnostic studies to develop a rapid, inexpensive, accurate test to detect leptospires in water were carried out by Roger L. Fujioka, water microbiologist at the University of Hawaii at Manoa. He presented a study entitled "Recovery and Characterization of Leptospiral Bacteria from Environmental Waters in Hawaii" at the Leptospirosis Research Conference in Japan in 1990, co-authored by Laura Young, and Bunnie Yoneyama. He and Richa Wilson presented a paper on isolation, characterization, and identification of saprophytic and pathogenic Leptospira at an International Leptospirosis meeting in Italy in 1994. Further work to detect pathogenic leptospires from water while suppressing saprophytic strains was presented at the 1997 annual meeting of the American Society of Tropical Medicine and Hygiene in Florida.

A need for more sensitive screening diagnostic tests resulted in a 1994 study of a preliminary evaluation of the Quantitative Buffy Coat Analysis system for leptospirosis, by Kenton J. Kramer, Pang, Minette and Joseph Perrone.

The need for screening tests that are easier to use and store resulted in a study titled "International Multicenter Evaluation of the Clinical Utility of a Dipstick Assay for Detection of Leptospira-Specific Immunoglobulin M Antibodies in Human Serum Specimens." It was authored by Henk Smits of the RTI and 19 others, including Sasaki and Harry Y. Domen of the Hawaii DOH. The test was evaluated in Hawaii. Studies were published in 2000 and 2001 by Smits et al., including Sasaki, on latex agglutination and lateral flow assays that evaluated screening tests that were easy to use and store. Paul Effler, Domen, Sandra Bragg, Tin Aye and Sasaki published "Evaluation of the Indirect Hemagglutination Assay for the Diagnosis of Acute Leptospirosis in Hawaii" in 2000. In spite of the IHA being the only FDA-approved screening diagnostic test for leptospirosis at the time, the test had an overall sensitivity of only 41% of samples tested with the IHA when compared to the confirmatory MAT.

Educational Programs

The DOH and the Ad-Hoc Committee launched many educational initiatives, most of which continue today.

Public Education programs included the following.

1. Brochures were created in three languages: English, Japanese and Ilocano.
2. Red and white warning signs were posted along streams in state and county parks, as well as at exposure sites of previous cases.
3. Leptospirosis education displays were circulated at public libraries and displayed at health fairs, clinics and a hospital.
4. An educational videotape, sponsored by the DOH and Kaiser Permanente, was developed and distributed to all schools and libraries in the state.
5. A sign was created for display in buses on the islands of Oahu and Hawaii.
6. Presentations to enhance understanding the disease and its prevention were made to groups as requested.

The following medical education programs were developed to increase awareness of the epidemiology of the disease in Hawaii.

1. Presentations have been made at national and international scientific meetings.
2. National and international consultations have been conducted.
3. National and international experts have been hosted for seminars and consultation.
4. Grand round presentations have been made at local hospitals and medical organizations.
5. Frequent articles have been published in the DOH’s bi-monthly newsletter, Communicable Disease Report, to update physicians on the epidemiology of leptospirosis.
6. Letters are sent to physicians who submit serum samples for diagnostic testing, and include the test result, and a request for convalescent samples for confirmatory testing.
The New Millennium
Studies In Progress

Several studies are being prepared for publication. Clinical and epidemiologic analyses of 25 years of confirmed cases in Hawaii by Katz, Ansdoll, Effler, Middleton & Sasaki are in press. Ansdoll wrote a book chapter reviewing the disease entitled “Leptospirosis” which will be published in the upcoming 3rd edition of The Travel and Tropical Medicine Manual. The DOH is analyzing a study evaluating eight rapid screening tests for the diagnosis of leptospirosis in Hawaii, in which the overall sensitivity by sample of the tests ranged from 27 (IHA) to 53%.

Concerns For The Future

Great progress has been made during the past century in Hawaii in understanding the nature of leptospirosis; its clinical manifestations, the uniqueness of its epidemiology in the state, its laboratory diagnosis, occurrence in travelers, and initiation of community prevention programs. However, further work is needed to more effectively control and prevent this disease.

There are over 600 people a year tested for leptospirosis in Hawaii. The DOH needs to implement a diagnostic laboratory for human and animal disease diagnosis, including MAT testing (confirmatory serologic test) and serotyping of isolates, to more effectively control and prevent this disease. The MAT is the most sensitive diagnostic test, more so than the recently developed polymerase chain reaction test (PCR), but is labor-intensive and requires paired samples drawn two weeks apart. In addition, a more sensitive rapid screening test is needed to assist clinical management of the disease.

It is still not known why the reported incidence in young children is low, and what role different animals play in transmission of the disease. Leptospirosis is an expensive disease, sometimes fatal, and often requiring protracted patient care (over 60% of identified cases are hospitalized). Because of its non-specific clinical presentation, leptospirosis is a disease that is usually recognized only when it is suspected. As a result, vigilance on the part of primary care physicians needs to be maintained. Continuing a high level of awareness in the community is also important to minimize exposures to the disease.

In 2000, a large outbreak of leptospirosis occurred among participants of the Eco-Challenge Adventure race in Borneo. Included among the ill were two residents from Hawaii. The 12-day race included jungle trekking, canoeing, sea padding, canyoneering, scuba diving, mountain biking, and caving. The race reflects the current popularity of environmentally challenging athletic activities. The outbreak illustrated an important risk for travelers from Hawaii, and emphasized the value of consultation with a competent travel medicine specialist prior to departure.

As concerns about leptospirosis were highlighted in former Governor John Waihee’s 1991 State of the State address, health care institutions should lead in programs limiting the impact of this serious disease in Hawaii’s residents and tourists.

Author’s Note

This paper does not describe all the research conducted in Hawaii, or list all published articles authored by Hawaii residents. In researching this document, over 85 articles were reviewed on leptospirosis related to Hawaii. All but seven references cited refer to work conducted in the state. Our intent is to provide the reader an understanding of the history of leptospirosis research in Hawaii, some of the important people and work that has led to our current understanding of the disease. It is our desire that future researchers may find this helpful in seeking to expand the knowledge of leptospirosis and develop more effective control and prevention measures.

Dedication

This article is dedicated to Henri Minette DrPH (1916-2001) who mentored three generations of leptospirosis researchers in his 56 years with the Department of Health - 30 years as an employee and 26 years as an unpaid volunteer. His profound interest in the subject, technical knowledge, work ethic, keen sense of observation, ability to see the “bigger picture” and receptivity to the ideas of others fostered great progress in our understanding of this disease.

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Currently, “minorities” represent greater than one third of the total population in the United States. 1 Significant health disparities exist for many of these minority populations. 2 To meet effectively their healthcare needs, medical practitioners need to be culturally competent.

Cultural competence has been defined as “a set of academic and interpersonal skills that allow individuals to increase their understanding and appreciation of cultural differences and similarities within, among, and between groups.” 3 Without such competence, breakdown in communication can occur, with adverse effects on the patients’ health. For example, compliance can be compromised if the physician’s recommendation is in contrast to what the patient believes, or has been taught to believe. The physician-patient communication is a crucial component of cultural competency training.

Training in this area is gaining popularity and representation in medical curricula. The Association of American Medical Colleges (AAMC) has adopted terminology recommending that cultural, or multicultural issues, be included in the medical school curricula. In addition, the American College of General Medical Education (ACGME) has recommended cultural competency as a training priority for primary care residencies. Programs concentrate on teaching skills and knowledge, while trying to influence attitudes, regarding the cultural assessment of the patient.

Training toward cultural competency begin with teaching skills in effective communication that allows the physician to elicit and acknowledge an understanding of the patient’s “clinical reality” that includes cultural beliefs or experiences. The inability to address this “clinical reality” creates barriers to understanding the patient’s perspective. Physicians need to be aware of the patient’s perspective as well as their own prejudices and beliefs. Both factors affect the physician interaction with the patient. Effective, compassionate health care dictates that the two parties understand and communicate with each other.

Opportunities exist to implement cultural competency in Hawai’i’s unique, multicultural environment. The University of Hawai’i, John A. Burns School of Medicine (JABSOM) is in an ideal position to fulfill its mission “to be the best medical school...with an Asian-Pacific focus” by creating culturally competent medical curricula that address the multicultural demographics of Hawai’i.

Cultural Competency training is currently underway at the JABSOM that focus on Native Hawaiians. Native Hawaiians are indigenous people of the islands who make up twenty percent of the population. It is important to target Native Hawaiians because of the significant health disparity that exists between Native Hawaiians and other ethnic populations of Hawai’i. For example, Native Hawaiians have the highest morbidity and/or mortality with respect to cardiovascular disease, diabetes and breast cancer. 4 Reasons for this disparity are many such as barriers to access that include physical barriers such as community location or transportation as well as cultural ones. Training physicians that can respond to hidden cultural and value-laden beliefs that may be obstacles to achieve health should be a goal of any curriculum. By making Hawai’i’s physicians more culturally sensitive to behavior and attitude, Native Hawaiians may renew their interest and trust in the medical community. Hopefully, this will lead to lower morbidity, mortality and cost of care to this population.

The Native Hawaiian who may not feel a connection to the physician and the health care system may discontinue or even initiate allopathic care. Kleinman 6, a medical anthropologist, has discussed the disparities between popular (public, alternative, complementary) medicine and the medical community. He proposes that the lay public seeks other, more easily accessible realms of healthcare because it’s what they know, and it, in a sense knows them, albeit having a congruity of two clinical realities. Understanding the alternative and/or traditional healing systems that a patient seeks is essential in providing health care. Physicians need to be aware of the roles these alternative treatments play on their patients’ health and on western medicine based treatments. Medical student’s knowledge about traditional and/or alternative healing systems should be included in any cultural competency curriculum.

The Native Hawaiian Center of Excellence (NHOE) at JABSOM is addressing cultural competency training in two ways. First, informing medical school faculty and community physicians about the disparate health of Native Hawaiians through a series of workshops. Second sponsoring a Native Hawaiian cultural immersion based CME program. The first workshop was conducted on the island of Kaho’olawe, a culturally significant place to Native Hawaiians. The curriculum focused on activities that would help physicians to increase their knowledge of their own culture and to recognize how their cultural constructs affect the physician-patient relationship.

Activities included lectures and hikes to archeological and culturally significant sites, instruction in cultural protocols, sessions for family and spiritual sharing, prayer, chanting, music, hula, ecological restoration work. The formal CME program introduced the physicians to Native Hawaiian healing practices including Lomilomi (massage), La’au Lapa’aau (herbal medicine), Ho’oponopono (traditional conflict resolution) and traditional diet. Lectures addressed cultural competency from a global perspective and affects of culture on the physician-patient relationship. There was time for discussion and sharing of ideas. Native Hawaiian physicians were targeted initially but the NHCOE plans to include other physicians and medical students.

An alternative approach is JABSOM’s post-baccalaureate program, Imi Ho’ola, that provides a year of enrichment prior to medical school matriculation for minorities from disadvantaged backgrounds. The student demographics range from Native Hawaiian, Filipino, Pacific Islanders and other ethnic groups. There is evidence that medical students from minority backgrounds fare better in bringing cultural competency skills. 6 A needs assessment of students and faculty at Imi Ho’ola illustrated that there was
significant interest in learning and teaching cultural competency skills to further effective patient-doctor communication; and, in turn, improve patient outcome.

The curriculum is designed to improve the student's appreciation for the cultural impact on patient's view of illness and healthcare with the use of paper cases and a standardized patient experience. The Native Hawaiian culture is used as an example to address general issues of cultural competency. It is anticipated that students would have cultivated attitudes, knowledge base and skills in the doctor-patient interaction, regardless of what culture they would face in practice.

In conclusion, cultural competency training in medical education is recognized as essential. This competency is a development that occurs over a continuum. JABSOM is uniquely situated in a multicultural setting that provides the medical school the opportunity and motivation to be a leader in innovative cultural competency curricula. Several examples illustrate how this can be addressed in the Native Hawaiian population. Whether these strategies will prove to be successful in the long run, and be useful for other ethnic groups remains to be seen. It is conceivable that, with such a diverse population that exists in these islands, equally diverse approaches to cultural competency training may be needed. Continued evaluation and improvement of the curriculum will result in students who will be able to use general principles for patients of other cultures and modify the approach for specific encounters. Cultural competence would then be assured regardless of the patient's diversity.

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Quality of Life Research in Hawaii’s Cancer Survivors

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More effective treatments and approaches to early detection have contributed to a dramatic rise in the proportions of cancer survivors over the past few decades. In 1930, only one in five cancer patients lived five or more years after diagnosis; by 1997, approximately one in two patients were survivors. Over 80% of patients with Hodgkin’s disease or with cancers of the breast, uterus, prostate, testis, or thyroid can expect to live at least five years after their diagnosis.

A diagnosis of cancer, as well as cancer treatment, have a significant impact on patients’ daily functioning. Patients must live with physical sequelae, including short-term side effects and permanent changes due to powerful and toxic treatments. In addition, the experience of being diagnosed and treated for a potentially fatal disease may negatively affect psychological status, disrupt family and employment activities, and prompt examination of personal spiritual beliefs. “Quality of life” (QOL) is a term that is used to refer to these multifaceted outcomes experienced by a patient. While definitions of QOL vary, virtually all investigators agree that QOL in cancer patients encompasses multiple domains, or areas, of well-being including, at a minimum, physical, psychological, and social functioning.

Little research has investigated how cancer-related quality of life (QOL) varies according to culture, especially in non-Western groups. Hawai‘i provides a rich natural laboratory for studying this topic, due to its cultural diversity. Hawai‘i’s residents draw upon European, Asian, and Polynesian heritages, as well as others, reflecting dramatic variations in traditional values, customs, attitudes and behaviors in almost every area of life. We are conducting research funded by the US National Institutes of Health to understand more about how ethnic and cultural variables affect QOL in cancer survivors.

One National Cancer Institute-funded study assessed quality of life (QOL) in recently diagnosed breast (N=126) and prostate (N=101) cancer patients of European American and Asian Pacific Islanders (specifically, individuals of Filipino, Japanese, and Native Hawaiian ancestry) to investigate whether QOL varied according to ethnicity. Participants were identified through consecutive registrations on the Hawaii Tumor Registry (HTR), based on a diagnosis of breast or prostate cancer 4 to 6 months previously. QOL was measured by a standardized questionnaire widely-used in cancer patient populations. We found that QOL was similar across ethnic groups in most areas. However, differences were found in several domains, all in the direction of Filipino breast cancer patients reporting worse outcomes, even when clinical and demographic predictors are controlled.

Another study, supported by the National Institute on Aging, investigates quality of life in long-term prostate cancer survivors and their spouses (N=181). Participants were identified through the HTR, based on prostate cancer diagnosis five (n=86), eight (n=76), or 11 (n=19) years ago. Survivors received no therapy (“watchful waiting”) (n=17), surgery (n=84), or radiation (n=80). Data were collected through mailed questionnaires including standard measures. On average, the survivors were 77 years old and spouses 72 years old, and 75% were of Asian/Pacific Islander (API) descent. Overall, survivors and spouses were doing well, with mean scores of 5.6 or higher on a 7-point global QOL scale for all groups, and 14% reporting depression levels above standardized cutoffs. Survivors who received radiation therapy had significantly impaired physical and bowel function and role limitations due to decreased physical health and emotional problems, compared to surgery patients. Group differences were maintained for physical and bowel function using analyses of covariance (ANCOVA) with age as the covariate. Men who received surgery reported significantly more sexual problems than survivors who received watchful waiting or radiation. These differences persisted when patient age was included in an ANCOVA. The groups did not differ in satisfaction with urinary function. Treatment satisfaction ratings showed that wives in surgical and radiation groups were more pleased with their husbands’ treatment than the survivors were. Survivors who received watchful waiting and their wives were significantly more likely to report that they would choose the same treatment again, compared to surgery-treated survivors and their wives.

A National Cancer Institute-supported study compared quality of life in long-term survivors of cancers of the breast (N=239) and prostate (N=87). Cancer survivors were identified through the HTR. Eligibility criteria included: localized disease at diagnosis, no evidence of disease at most recent registry follow-up, ability to respond to written English language questionnaire, 18-30 months post-diagnosis (“short-term survivors”) or 60-72 months post-diagnosis (“long-term survivors”); Filipino, Hawaiian, Japanese or Caucasian ancestry. Participants completed mailed questionnaires including standardized measures of QOL and free-response questions. Results indicated a number of differences between survivors of the two diseases: prostate survivors were more likely to report sexual problems (more than 50% in both survivors groups, compared to less than 8% of breast cancer survivors) and lower levels of emotion (both positive and negative). All groups reported making a number of lifestyle changes following their diagnosis, including stress control, spending more time with family and friends, dietary modifications, and changing priorities. Survivors of Filipino ancestry reported higher levels of stress and depression: 30% of Filipinos were rated as depressed at both time periods. Problems reported by survivors tend to persist over time (e.g., at two and five years post-diagnosis), even though most respondents across ethnic groups function well compared to population norms.

Our research to date indicates that cancer survivors experience numerous changes as a result of having been diagnosed and treated for cancer. Cancer treatment related morbidities may persist even many years after treatment cessation. QOL concerns appear to differ

Continued on p. 193
News and Notes  Henry N. Yokoyama MD

POTPOURRI...

The ten-year old boy was failing math...His parents tried everything to get
him to do well in school, but nothing worked. Finally they enrolled him in
a Catholic school...From the first day, the boy spent every night pouring
over his books. The first report card came with an A in math.

“Son,” the father asked. “What made the difference in math class? The
nuns? The text books?”

“Dad, I had never taken math seriously before,” the boy admitted...“But
when I walked in and saw the guy nailed to the plus sign, I knew the place
meant business.”

John Stein

An enormously wealthy 65-year old man fell in love with a young woman
in her 20’s and was contemplating a proposal...He asked his friend: “Do
you think she would marry me if I tell her I’m 45?” “Your chances are
better,” said the friend, “if you tell her you’re 90.”

Phoning a patient, the doctor says “I have some bad news and some worse
news...”

“The bad news is that you have 24-hours left to live;”

“That is bad news,” the patient replies...“What could be worse?”

The doctor answers: “I’ve been trying to reach you since yesterday.”

Proserina Chakrobartis

TRUE CONFESSIONS...

A colleague related the following incident that occurred when he was an
intern in the E.R...A young teenage female was admitted to the department complaining of
abdominal pain. The attending after the usual barrage of questions, asked
her is she was sexually active...

Sheepishly she looked up and replied, “No, I just lie there.”

Dr. Howard Shifferon

POTPOURRI...

A Poor Fit: During a routine afternoon, a young girl entered my office with
an older woman who turned out to be her sister...

The girl seemed embarrassed when I asked her what the problem was...

“I need an operation;” she murmured...

“What sort of operation?” I asked...

“You know, down there. my boyfriend says I’m too loose...and I need an
operation to make it tighter.”

I proceeded to examine her “down there”. Everything seemed to be in
order and I reassured her that she was perfectly normal and didn’t need an
operation...

She was unconvinced and insisted this was a serious matter and she was
afraid of losing her boyfriend...I was getting annoyed by the boyfriend’s attitude so I told her “perhaps he was too small.”

Her sister jumped up and said, “That’s what I told her.” With that they
both left with the patient still looking unconvinced.

Dr. T. A. Rohland

I Ain’t Dead Yet...

When I was a first year medical student, our clinical group was being
instructed on examination skills at the Family Medicine Center...One
Monday morning, we had a didactic session on cardiac murmurs...Then we
were turned loose on a patient who was supposed to have some cardiac
findings.

The patient turned out to be a 70-year old widow...

She looked at me and asked, “What are you checking for, young fellar?”

“I’m feeling you for a thrill.”

She gave me an understanding look, took her blouse completely off, pulled up her bra and said, “You go ahead and enjoy yourself, young fellar. I ain’t dead yet myself.”

Dr. F.R.S.

Novel Treatment...

A long time ago when I was an intern at a Toronto teaching hospital, a
patient came to the ER with a fish bone stuck in her throat. The ENT staff
physician on call was contacted and the Intern was told to take the patient
to the ENT surgery...

A corridor with a gentle sloping ramp led to another part of the hospital
where the ENT Operating Room was located...At the top of the ramp, the
intern lost control of the wheelchair which hurled down the ramp. At the
bottom of the ramp, the wheelchair was caught on the doorwa and the
patient thrown to the ground and coughed up the fish bone. The intern with
great presence of mind said, “You’re awfully lucky, Lady...Usually we
have to do this two or three times before we get it out.”

Dr. James Watt

Unexplained Weight Loss?

I was one of two physicians in a small community. Maternity patients
would see both of us for check-up during their pregnancy...One evening a
somewhat hefty woman came for a prenatal visit, or so I thought...I noted
on the chart that she was just about her due date...I checked her BP, urine,
and weight...

She had lost 20 lbs. since her last visit. I rechecked the weight and still a
20 lb. discrepancy...

“According to the scale, you’ve lost 20 lbs.” I commented...

“Yes...I had the baby last week.”

Dr. Kenneth Murray

Overheard...

Two men discussing a friend’s ailments...“I heard Joe’s laid up in bed
with back pain. The doctor told him it’s ‘PSYCHOTIC NERVE’...”Yeah,
I heard the pain gets so bad it can drive you crazy.”

Dr. R. Stein

Sleeping Aid...

At the end of a long and arduous afternoon clinic just after Christmas, my
day was certainly spruced up by one of my regulars, a wity middle aged
lady...

She was consulting me about a painful left foot which had apparently kept
her awake all night all through Christmas...Besides diagnosing and pre-
scribing some medication for her malady, I asked whether she needed "something to sleep with."
She replied, "No thanks, I got John."

Dr. Peter Groenwald

What A Relief!
Mary, a 400-lb. patient with massive lymphedema of both legs is barely able to get around and sits all day in a double wide Laz-E-chair...

On a recent visit to her home to remove some stitches from her leg, I pulled up a chair and was concentrating on the stitches when I noticed I was sitting on something cool and damp...

"Did you spill some water on this chair, Mary?" I asked?
"Oh no, Doctor, don’t worry about that. "I was just sitting there an hour ago and had lost control of my bladder before Brian could get me on a commode."

Dr. Bernhard

Life’s Like That...
After I warned the nurse taking blood that it would be very hard to find a vein on me, she said, "Don’t worry, we’ve seen worse...Last year, we had a girl come in for a blood test for her marriage license and we had to stick her six times in four places before we got anything."

"Yes, I know...That was me!"

MEDICAL TID BITS...

Joint Saver?
Dr. John Lippel, Medical Director of the Arthritis Foundation says that new research should have an extraordinary impact on the treatment of osteoarthritis (which affects one in three Americans over age 63). A recent long term study showed that a regular glucosamine sulfate regimen can ease the pain and disability of osteoarthritis...The subjects were given 1,500 mgm of glucosamine sulfate daily over three years and reported a 20-25% improvement in symptoms and little or no changes in the X-rays of the joint spaces...

Ritalin:
Millions of children with ADHD take Ritalin...A Duke University study suggests that the drug is both over and under prescribed...25% of kids with confirmable ADHD are not getting the drug while more than one-half the kids who take the drug should not be...

RU-486:
Two years after the debut of RU-486 (Mirenaconest) in France as the "abortion pill" the FDA has approved its use. The pills alone cost $240 and are not as cost effective as surgical abortion...

Stem Cells:
Medical researchers dream of using stem cells to treat a whole range of untreatable diseases, but are restricted by religious opposition and fears that the embryos (the best source of stem cells) could become a kind of cash crop.

Xena:
Xena is a female piglet cloned from fetal pigskin cells. The techniques that make Xena may eventually create a supply of genetically modified pig liver that would be acceptable to the human immune system.

Zinc:
A study from the Annals of Internal Medicine suggests that folks who take Zinc supplements to ward off colds may be reducing the cold symptoms by four days... (Zinc however lowers HDL).

Testosterone:
Four million men in the U.S. with clinically low testosterone levels take supplements...A new topical formulation ANDROGEL will make it easier for legitimate users to take the hormone...

Verteporfin:
AMD (Age Related Macular Degeneration) affects 13 million Americans and cause vision loss...Verteporfin is the first treatment approved for AMD...It is a photosensitive dye, which is activated by low intensity laser, destroys the troublesome vessels...

Fast Pack:
FDA has approved FAST Pack (an automated blood analyzer) which measures the level of Prostate Specific Antigen (PSA) within 15 minutes...

Gene Therapy:
Progress in several medical centers are on hold since the 1999 death of Jesse Gelsinge, 18, the first American known to have died from gene therapy...Doctors in France have successfully used gene therapy to treat infants with congenital immune disorder.

Tenectaplast:
A powerful new clot busting drug, TENECTAPLAST, has reduced treatment time for heart attack patients from 90 minutes to just 5 seconds...Clinical trials show the drug to be as effective as TPA and easier to use (i.e., a single injection instead of an hour and a half infusion). It is also longer acting...and targets blood clots...

Lung Cancer:
Researchers have found that a diet rich in fruits and veggies reduces the risk of lung cancer in women (the scientists suspect carotenoids may be the anti-carcinoid).
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in survivors of different cancer sites and ethnicities. Many survivors report positive effects of having experienced cancer, such as increased appreciation of life and changed priorities, as well as problems.

We are developing additional research to understand more about factors that predict high and low QOL. We are also exploring QOL in specified populations including survivors of more than one primary cancer, long-term cervical cancer survivors, individuals who have survived poor prognosis cancers, newly-diagnosed breast cancers, and men with breast cancer. We are initiating research projects to identify the most effective ways to provide support and assistance to cancer survivors, especially for Filipinos, who appear to be at particular risk of psychological distress. These interventions include telephone counseling delivered by lay advocates, a program to help survivors express their feelings in writing, and therapeutic massage. Our ultimate goal is to enhance well-being in cancer patients and their families by providing culturally-appropriate interventions that will assist them in achieving the highest possible QOL.

References
If The Shoe Fits, Find Another. You'll Have A Pair.

Despite the determined efforts of the aggressive optometrists, HOS leadership with help from the Hawaii Medical Association, was successful in diluting and restructuring the proposed optometry legislation in the last legislative session. The medical issues which presented a threat to the public were removed. However, there is an underlying message (from a legislator) which is ignored by too many of our members. As long as some of our eye surgeons work with optometrists in providing their education, and also in sharing patient care, the definition of eye MD will be increasingly difficult to maintain. It cannot be both ways. We cannot complain to legislators and request their cooperation on medical issues about the expansion of the scope of practice of optometry, yet continue to work with them in our offices and allow them to provide medical care! The public often does not know there is a difference, and many legislators do not know either. So, those of you reading this who are selling your medical skills and knowledge to physician wannabes in order to increase your surgical practice, wake up before all the lines disappear, and you wonder where your profession went.

Trauma Is A Growth Industry.

When you are on call for a hospital emergency room, what is your obligation regarding patients not known to you? If the ER physician makes no effort to contact you, and merely discharges the patient with instructions to contact you if necessary for further care, there is no apparent liability on your part. If the ER physician contacts you for assistance in managing the patient, and then discharges the patient with instructions to see you for subsequent care, a doctor-patient relationship becomes a fact. You have an obligation to see the patient for follow-up, or arrange for a referral if that is appropriate. If the patient does not contact you, it is necessary to make an effort to remind the patient of the need for follow-up care, and if the condition is more serious, you might need to be more persistent, including even sending a registered letter. It’s a dangerous world out there.

Was It Good For You, Darling?

Investigators at Medtronic are wondering whether to embrace the apparent amorous possibilities of their new pain device. While positioning a spinal cord stimulator near the spinal cord of a female patient suffering from chronic back pain, the pain specialist heard the patient give a groan as if in orgasmic pleasure. When the doctor asked the patient about it, she replied, “You’re going to have to teach my husband how to do that.” A news account picked up on the discovery and produced a headline, “Doctor stumbles on orgasm machine.” Medtronic stock jumped $1.36/share, and the stock closed higher for four consecutive days. A company spokesman noted that a few urologists have reported some patients have claimed improved sexual function after having a Medtronic device implanted to stimulate their bladders. A stuffy, unamused researcher stated, “that is a far cry from sexual stimulation on demand, and there is no clinical data in this area.” Hey, get with the program, Doc. Nothing sells like sex. Ask Bob Dole. Ask Pfizer.

Errors Have Been Made. Others Will Be Blamed.

Murderers, burglars, rapists and arsonists can still apply for federal aid to education, but one misdemeanor conviction for possession of marijuana is taboo. A history of a single conviction for pot possession, by far the most common drug charge, disqualifies the student for one year. The length of ineligible time varies with the seriousness of the drug crime and the number of offenses. The law was passed three years ago with scant debate as part of a bill re-authorizing all federal spending for post-secondary education. About 26,000 people appear ineligible for federal financial aid for the upcoming school year. Some student groups and many campus administrators have opposed the bill since its inception. Now, U.S. Rep. Mark Souder, (R) Indiana, one of the bills sponsors, wants to change the law. He stated that the intent was only to penalize students who were convicted while receiving federal aid, not to have any retroactive function.

Nothing Is More Boring Than Listening To Someone Recite A Dream.

A very interesting finding was noted in four patients with sleep apnea syndrome. The four complained of unilateral visual loss and were found to have bilateral disc edema with asymmetric or unilateral optic nerve dysfunction. Neuro-imaging studies were negative for mass lesions, venous sinus thrombosis, or hydrocephalus. Cerebro-spinal fluid pressures were normal, but were believed to increase with sleep. Investigators have postulated that papilledema in these patients is due to episodic nocturnal hypoxemia and elevated carbon dioxide with secondary cerebral vasodilation. The patients did not present with signs of increased intra-cranial pressure, but instead came in with visual complaints.

Power Corrupts! Absolute Power... Is Kind Of Nice, If You're HMSA.

A Hawaii magazine, Island Business, ran a special report on Hawaii Medical Services Association called “An 800 pound gorilla.” The article notes that last fall several doctors and insurance executives were interviewed by investigators from the U.S. Department of Justice. The probe appears directed around HMSA’s market dominance and role on the state’s Prepaid Healthcare Advisory Council. The HMSA board of directors is made up of some of Hawaii’s true power elite, including executives of major banks, unions and businesses. State regulators are concerned about the monopolistic picture, because HMSA virtually controls the indemnity market. HMSA has 622,000 members, 95% of the fee-for-service market, assets of $861 million, investments of $687 million, and annual revenue in excess of $1 billion. An additional bonus is that as a “mutual benefit society” HMSA escapes the 4.17% gross excise tax which virtually everyone else pays. In the past two years, rates have increased 13% and are scheduled for a 10% hike next year! Physicians in this state see no alternative but to participate with HMSA in their program of “preferred providers.” Wayne Metcalf, state insurance commissioner, says he is uncomfortable with the lack of competition, but claims that state law does not regulate health insurance rates. HMSA’s senior vice president, Cliff Cisco, says he does not know what prompted the federal inquiry. Paul Tom, chairman of the Prepaid Healthcare Advisory Council, doesn’t like HMSA’s attitude. “They are the biggest in town and they say, ‘Play by my rules or don’t play at all.’ That’s being a bully.” Hey, if it looks like an insurance company, smells like an insurance company, and behaves like an insurance company, why is it called a mutual benefit society?

Righteous People Terrify Me.

In Massachusetts, a law was enacted in the 1960s which banned tattooing by laymen. The law prescribed a fine of $300 or jail time up to one year for violators, however no one had ever been prosecuted. Now Superior Court Judge Barbara Rouse has ruled that the ban against lay tattoo artists is unconstitutional, and she ruled in favor of two Martha’s Vineyard residents who had filed a suit against the state. “Tattooing is an ancient art form which has been practiced in virtually every culture. Tattoos demonstrate commitment to political and personal beliefs,” said the judge. State health officials argued that the ban protected those butterfly-thigh and other exhibitionists desiring to state “political and personal beliefs,” from contaminated needles, and thus provided a semblance of protection from HIV and hepatitis viruses. The judge suggested that the state could satisfy its concerns and make some money also by regulating and licensing the art. What wonderful legal progress! Remove a statute never enforced and replace it with a licensing and regulating bureau.

ADDENDA

- More Americans are arrested for drunken driving than for any other crime.
- Ancient Egyptians shaved off their eyebrows when their cats died as a sign of mourning.
- If ice fishermen sit on the ice too long, do they develop polaroids?
- I saw “Crouching Tiger, Hidden Dragon” and loved it. An hour later I wanted to see it again.

Aloha and keep the faith —rt.—

Contents of this column do not necessarily reflect the opinion or position of the Hawaii Ophthalmological Society. Editorial comment is strictly that of the writer.
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