



**Dateline: Boualapha, Laos**

**Ben Berg MD**

Dr Edward Chu, staff cardiologist at Tripler Regional Medical Center was deployed to provided medical care for a team of U.S. personnel during a 26 day mission to Laos in October, 1996. The team was on a regularly scheduled mission to search for and recover the remains of servicemen who remain missing, or were killed in action, during the Vietnam Conflict. This team is part of a standing Hawaii based joint task force which has conducted the ongoing recovery mission for the past 18 years. Dr Chu was accompanied by 4 trained medics, from the Army, Navy, and Air Force. His report of this experience follows.

During the month of October, at the end of the rainy season, the weather was very hot but dry, with a few days of high humidity and heavy rain. Mosquitos, large centipedes and snakes were regular visitors to the Boualapha base camp site, as this is normally a prairie for the town water buffaloes, pigs and chickens.

Medical care was provided in the Khammouan and Savannakhet provinces, Laos Peoples' Democratic Republic from 2-28 October 1996. This included thirteen Medical Assistance Programs for the local civilian population. Workers and/or villagers at field sites, and at Boualapha District Hospital of the Khammouan province were evaluated and treated. Villagers in the towns surrounding Ban Passang of the Savannakhet province and in the town of Ban Nantachai of the Khammouan province were also evaluated and treated. A total of 465 patients were seen.

Most villages have a "village healer." Larger villages or towns may have a nurse who is trained at Vientiane. District hospitals have physicians and nurses. Boualapha District Hospital has 4 physicians who are from the district and are trained at a four year medical "school," and 29 other personnel. Muang Xepon District Hospital has 2 physicians and 20 nurses.

The physicians are trained at the "medical school" at Vientiane, a four year program following high school. They then are sent to district level hospitals for "on-the-job-training" but rarely have a very senior physician. The physician with whom I primarily worked, Dr Sisombat, seemed concerned, interested in learning, and knowledgeable about the local diseases. He had little understanding of pathophysiology or pharmacology. I would estimate that the local Laotian physician has an equivalent level of training to US physician assistants.

The Lao patients were generally healthy, with the majority performing manual labor as farmers. Most complaints were associated with work related injuries/exposures or communicable tropical diseases. Commonly encountered conditions included; Ectoparasites: lice or mites; "worms"/intestinal parasites: likely to be either *Ascaris Lumricoides*, *Tricuris trichiuria*, *Enterobius vermicularis*, *Strongyloides stercoralis*, *Taenia solium*, or a combination, and malaria or Dengue fever. Medications for these diagnoses were limited and depleted early in the course of the mission. Malaria was frequently seen as a chronic illness with massive hepatosplenomegaly and had a significant impact on pediatric growth retardation.

Villagers were open to western medicine, however had faith in the local traditional healer. The women tended to be shy and refused

gynecologic exams when complaining of pelvic pain. Although having an exam by a male "foreigner" is likely to be a significant factor, I suspect that this a medicine taboo. The overwhelming majority of people smoked, from as early as age 3. Many women chewed betel nut. Most men drank the local rice whisky, laolao.

Preventive dental kits were distributed at all sites to 144 children and adults with significant gingivitis. All women of child bearing age, pregnant or after recent delivery received prenatal vitamins. Preventative health measures are generally absent in the villages.

Water was generally untreated from the local river or stream. Food consisted of rice, water buffalo and chicken meat and local greens. Sanitation in the smaller villages appeared quite good but the larger towns or cities were very dirty. This is probably due to the common belief, in the tropics, that the jungle or the ocean will consume the wastes. This is very true without western products (plastics, heavy paper goods and metal cans), but with increasing population density and western products, sanitation is poor.

## **Boualapha district hospital**

The hospital is open 24 hours a day and always has a physician on duty. The maximum capacity of the hospital is 12 patients, with the monthly census of about 30 patients. The hospital was clean but with limited facilities to include an open air room for minor surgical procedures, a delivery room, a "laboratory" consisting of an ambient light microscope for malaria smears and a pharmacy, primarily stocked by previous U.S. team missions and locally acquired herbal "therapies." Herbal medications included products from roots and small trees in the local hills. These preparations were used to treat maladies ranging from rheumatism to headache, to "women's" problems. The instruments for surgery appeared old, rusted and non-sterile but clean.

The hospital receives funding and supplies from the provincial capitol but frequently operate without medications or sterile supplies. Needles, IV tubing and bottles, "disposable" surgical equipment and catheters are reused after "cleaning."

The top three diagnoses noted by Laotian physicians were malaria, bronchitis, and diarrhea. Trauma was generally minor except after harvest season when a "slash and burn" technique for farming reaped 10-15 cluster bomb explosions, with the majority resulting in death. There is a team from the district hospital that travels to the villages once a year to vaccinate for the following: measles, diphtheria, polio, pertussis, small pox, and for tuberculosis protection. There have been attempts to eradicate worms and provide iodized salt supplements to prevent thyroid goiters.

## **Clinical Cases**

An elderly villager fell from her elevated house and suffered an apparent open mid shaft femur fracture. A U.S. team was sent from their worksite to the village and care was provided by the team medic. Although she was transferred to the site for medical evaluation, she and her family declined further care and she was then transported to the care of the "village healer" and died three days later.

Two burn patients in the village of Ban Napang were treated. The burns were incurred from mosquito netting fire and burned a woman in her 30's, a 6-year-old child and an infant who expired shortly after the injury. Initial evaluation and treatment was denied by the Lao officials, but allowed after a visit to the village by the U.S. team. Escharotomies were performed to 4 to 6% second and third degree burns. The child survived after debridement of the wounds.