

## Editorial

# Surgical challenges in a resource poor setting after decades of war and genocide

Physicians, transplanted to a poor, trauma and disease ridden country are likely to be transformed. What he or she plans to achieve in a new cultural and economic setting, may not be achievable in ordinary ways. Practices that he or she had learned and considered “state of the art”, are often impossible to implement in the new environment. This is particularly true for surgical specialties such as orthopedics and reconstruction. There is usually no way that a needed joint replacement, or other expensive prosthesis, can be obtained in a poverty stricken village or town in Asia or Africa. Other physicians, such as generalists, pediatricians, and cardiologists can find themselves confronting desperate patients without the tools and medications to give help by Western standards. Transfer to a higher level of care is usually impossible for economic, cultural, and even political reasons. The most common approach to such a situation is acceptance and becoming a sort of medical bystander: suffer with patients and provide comfort care. This may have been the approach of many missionary doctors in the past. A rare individual, however, will start to innovate on the assumption that modern high technology-based and high cost medicine may not be the only approach.

One surgeon, originally from Yorkshire, who after studying at St. Andrew’s University in Scotland and then Trinity College, Dublin where he graduated in medicine in 1972, transplanted himself to Fairbanks, northern Alaska, a region that in the 1970s was much in need of experienced orthopedists and general surgeons. There, he achieved fame and financial independence; his children were grown and educated (son also an orthopedic surgeon and daughter now editor of a leading medical journal), and he decided it was time to move on. After a six-month sabbatical in Cambodia during the Alaskan winter of 1992–1993 [1], where he worked with the American Red Cross as a surgeon just as the United Nations were stabilizing Cambodia [2]; he could see firsthand, how, after thirty years of war and a 25% genocide by Pol

Pot’s Khmer Rouge regime in which the country’s educated were targeted for execution, among them almost all of the nation’s doctors [3], that the medical system there had “suffered tremendously”. In 1998 he was encouraged to return to Cambodia and set up a small center for the treatment of landmine victims. With the aid of a US\$20,000 from a private donor and at his own expense he started work on what has developed into the Children’s Surgical Center (CSC) in Kien Khleang, Phnom Penh. The CSC was born in the Ministry of Social Affairs’ National Rehabilitation Center for treating land mine victims and neglected polio patients.

However, James G. Gollogly, FRCSC, FACS, expanded his mandate to treat any disabilities that could be treated. The CSC moved from reconstructing the neglected fractures of land mine victims to just about everything that was badly needed. Patients are attracted to his facility in Phnom Penh from the entire country. With help from an extensive list of contacts in Asian, European, and American university centers, they began to do major facial [4, 5] and neurosurgical reconstruction [6, 7]. Between 2008 and 2010, over 150 congenital craniofacial conditions common in Cambodia were repaired with excellent results [5]. Cataract surgery is one example of a relatively simple surgical procedure that can transform the life of a patient. Around 2,500 eye operations are performed at CSC each year to either restore, or prevent further deterioration of eyesight. The operations range from mostly cataract surgery to more complex vitreoretinal surgery; and lengthy oculoplastic operations where the ophthalmology and reconstructive surgeons work together on complicated cases [8]. The CSC has attracted many experts who have the experience and judgment needed to help train the next generation of Cambodian surgeons and health care workers. The CSC has thus become an educational institution with young Cambodian doctors rotating through its operating rooms. The emphasis is almost solely on what can be done with simple tools. To do this even very old, but proven, surgical procedures have been used. “Dr. Jim” has managed to find methods that are appropriate in a setting like Cambodia, where resources are lacking [9]. For example, the

Krukenburg procedure, developed by a World War I field surgeon [10, 11], can be used to restore some dexterity to double hand amputees [12, 13].

In Cambodia many people have had their hands blown off while laying or removing land mines, or trying to recover the explosives therein. Krukenburg's simple, functional procedure can help these people a lot where resources for sophisticated hand prostheses are lacking, and patients prefer it to the stumps left by a transverse operation. The CSC has saved many lives and limbs, and has allowed some totally disabled patients to move around more easily [14]. Under Jim's stewardship the CSC has considerably enlarged its facilities, and expanded the repertoire of procedures it performs. In 2008 Jim was awarded an Order of the British Empire (OBE) for this stewardship and his services to humanity in Cambodia. It is fascinating to note now that their next step is to analyze their past work and see what their future direction might be. The paper in this issue by Kyle Walter Rattray et al. is hopefully a step in this direction.

## References

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