World Orthopaedic Concern

Newsletter No 106 - December 2009

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Websites:- www.worldortho.com
www.wocuk.org
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This Newsletter is circulated through the internet, and is also sent to all WOC Regional Secretaries in the hope that they will be able to download and distribute it to those not connected through the "net."

The object of these communications is to spread information about Orthopaedic activity in the more remote and less publicised parts of the world; places where orthopaedic surgery of a demanding type is nurtured and developed, by outstanding practitioners, in deprived circumstances, to an astonishingly high standard. WOC is classified as a Charity; but its fundraising activities are unaggressive. Its philanthropy is delivered through the active enthusiasm of its members.

It is the duty of the editor to disseminate News of these activities and portray the character and nature of the work, especially to emphasise its different nature, not its different standard. To do this he needs the personal feedback of the readers, partly in order to inform would-be collaborators and participators, and to provide the readers with the "e" addresses of these in the field, as it were. It is also in part, to generate support, both moral and financial (in the form, at least, of the modest membership subscription to WOC).

One of the obstructions to active involvement in work in the developing countries of the world, is fear of confronting conditions, of which the trainee from the developed world may have had little or no experience. The Newsletter therefore depends upon the first-hand reports of both your successes and your failures. Very few will have had the opportunity described in the main story of this Newsletter. Its contents are for the Concerned Orthopaedic World; it is not restricted to contributors to WOC.

REGIONAL REPORTS

INDONESIA

As is often the case, a surgeon develops an attachment to a particular town or area, for historical reasons. The President of WOC (Int) , **Ger Olyhoek,** from the Netherlands, has for many years visited in the Indonesian Island of Sumatra, once-upon-a-time part of the Dutch-speaking East Indies. (Language is often a hurdle). His work was in his words, unremarkable, or was until the earthquake of 2004 produced the Tsunami, which sealed that word into the world's vocabulary.

The lessons he took from that experience were not happy ones. Worse than a land-locked Earthquake, a Tsunami strikes suddenly, and drowns almost every case of limb fracture. Ger wrote at that time that the first priority of outside aid is for mechanical engineering, which can only really be supplied by a prepared military force, with lifting gear. The immediate need is to gain access to the area with helicopters, because roads are washed away. But outside armies are so often forbidden by political blockade arising from a Nation's fear. When Ger arrived, later, much emergency surgery had already been done, a great deal of it by surgeons unfamiliar with the situation. All the classic mistakes of war surgery had been made. Open reductions and internal fixation, commonly became infected; many primary and secondary amputations had been carried out, many of them unnecessarily.

When the second earthquake struck the same island last year, the 2004 bitter experience would prove invaluable. Fixation of fractures, if at all, was to be by external rather than internal devices. Promptly after the tremors, Ger's team was ready to go, but his colleagues in Medan told him to delay a while because all medical buildings had been destroyed. In collaboration with the Dutch Ambassador in Medan, Ger has been sending x-ray equipment and any surgical instruments on which he could lay his hands. Much of it is standard stuff, from the army, old but unused, "moth-balled" for use in a "Cold War". In the meantime patients were being lifted out by helicopter to local hospitals in Siantar. We understand that Ger will be in Sumatra during February. We anticipate his report. **golyhoek@hotmail.com**

A STORY OF VARIOUS DISASTERS
BOSNIA et al

John Beavis retired from the health service after a coronary bypass in 1992, in his late forties. He had returned to work but unfortunately the symptoms of angina returned; his cardiologist invited him to, "*Either walk out of the job, or eventually be carried out".*

At this time (1993) a terrible civil war was raging in Bosnia and so, thinking that he had little to lose, he volunteered to work in the civilian hospitals in Sarajevo. for what few years might be left him. For the next seven years he returned on many occasions to the besieged city, both during and after the war. *(It is also interesting to note that he never had angina again, despite working hard in rotten conditions; but then he was no longer engaged in the energy consuming NHS politics and inevitable internecine "conflicts" with managers - and sometimes colleagues!)*

Most injuries in Bosnia resulted from sniper fire or mortar shells, but were compounded by the low levels of nutrition, resulting from of the siege. He initiated a small research project which demonstrated that, as the effects of the blockade increased, during the winter of 1993/94, so the infection rate of wounds also increased, in direct relation to deterioration of nutritional status in the population.

Within six weeks of the war beginning, **Sarajevo** had no method of fixing fractures but in less than a week two surgeons and an engineer designed, tested and began to use a simple external fixation device, which they called **Sarafix**. It was eventually used on over 4000 patients for the treatment of complex fractures of the limbs and pelvis with an 80% rate of bone union. The patients almost always suffered from multiple injuries affecting various systems. Beavis had chosen surgery as a career because, initially, he had wished to enter the (long forgotten) speciality of general Traumatology. At last he was undertaking this type of work. It was a situation in which there was no place for either the inexperienced surgeon, or the super specialist.

The major complications of the limb wounds were severe soft tissue damage with arterial and nerve lesions and chronic infection. A system of radical "repeat procedures" was devised which reduced the incidence of chronic osteomyelitis, but nevertheless a significant number of patients did experience recurrent infection several years after apparent resolution. The lesson learned is that when bone is contaminated, our ancient enemy –infection—is never, surely eliminated.

A further study showed that although the sieges of the Bosnian cities were relieved in late 1995, the country's economy had been disastrously damaged with very high unemployment levels and health services that had been almost eliminated for non-emergency conditions. One of his studies demonstrated that five years after the war had ended, over 50% of the injured patients were still unemployed because of their disability and the paucity of available jobs. Another published study compared fractures of the tibiae in UCH, London, with those in Sarajevo, during the same period as the siege. The profound difference between such injuries in peace and war, clearly emerged.

During the war the people of Bosnia would wryly smile over those who came simply to photograph them, or to "*notch up the experience*", but who did not return and no more was heard from them. The world soon turns away, when there is no longer a "*good* (journalistic*) story*". Beavis believed this was the time to demonstrate support for the Bosnians and over the next few years regularly returned to work with his colleagues. A *"Bosnian Fund"* was created by Beavis and his wife, and supported by donations from friends, enabling many post-war projects to be undertaken. One of his greatest sources of income has been his fees from medicolegal reporting, which funded an ultrasound machine and the creation of a screening system for developmental dysplasia of the infant hip.

When flying to Sarajevo in 1998 via Zurich, Beavis met a complete stranger on the plane who expressed an interest in his Bosnian activities and after a brief conversation made a donation of £5,000 to the fund. This man, **Simon Oliver,** who was to become the Chairman of the company Dairy Crest Plc, left Beavis with the advice, "*Start a Charity".* Thus **IDEALS** (International Disaster and Emergency Aid with Long-term Support) began, with Simon as an important Trustee. This charity works entirely with volunteers who pay their own air fares and subsistence.

From this work several papers have been published; one of them a Mastership Thesis on *"Complications of War Injuries to the Extremities"* for the University of Sarajevo. In addition Beavis was awarded a Hunterian Professorship, at the Royal College of Surgeons of England, to which he presented his dissertation entitle**d *"The Medical Consequences of a Siege on a Modern City. Sarajevo 1992 to 1996"*.** This has been presented as a thesis for the Diploma in Care of Catastrophes.

One of the major problems that had to be faced was the lack of paediatric orthopaedic activity during the war, resulting in late presentation of DDH and Talipes. These two problems were tackled head on with the purchase of an ultrasound scanner and courses in early detection of DDH, including a training visit by **Professor Graf,** from Austria. The DDH screening resulted in a substantial decrease in late presentations. In addition a formal study of biomechanics of the Sarafix apparatus has been undertaken in the Department of Biomechanics at Imperial College, London. IDEALS extended its work to other specialities by supporting training in Pain Relief for the anaesthetists and sponsoring a general surgeon to attend courses in laparoscopic surgery in London.

By this time Beavis had been appointed Senior Lecturer by the **Leonard Cheshire Centre for the study of Conflict Recovery** at University College London. This department, which was led by **Professor Jim Ryan**, was tasked to investigate the influence of medicine both in studying and assisting recovery after conflicts. In 2002 they became aware of the large number of injuries reported from the tribal areas of the North West Frontier Province (NWFP) of Pakistan, as a result of the uncharted anti-personnel mines, dropped in haphazard fashion by Russian aircraft during the 1980s. It is believed this was an attempt by the Russians to prevent the Mujahadeen from using the Afghanistan/Pakistan border passes.

Initially Beavis considered the **ATLS,** early trauma management system, to be necessary, but a visit to the North West Frontier, convinced him that the **Primary Trauma Care UK** system, was better adapted to the conditions of a country with limited equipment. The first course took place in Peshawar in 2004. Since then has been recognised by WHO and adopted throughout of Pakistan. Over 4,000 candidates have been successful. The charity IDEALS, has provided basic primary trauma care apparatus to all the main hospitals in the North West Frontier tribal area. It became a principle that knowledge must precede equipment.

The Pakistani activities were temporarily interrupted when the IDEALS charity translated to Southern Sri Lanka, following the **Tsunami,** in December, 2004. There was little to do of a surgical nature, but the charity was able to support the population of a small town, devastated by the tidal wave. This support included the supply of a major deep sea fishing vessel which supports over 100 people,

and the reconstruction of buildings and businesses. One particularly poignant support was given to a school for blind children who were running out of food and subsisted on mashed bananas.

In 2005, Beavis returned to Pakistan, when the **Earthquake** occurred. The major problems of a surgical nature were of unstable thoracolumbar fractures, late presentation of displaced pelvic injuries and various wound contractures. Although Beavis was able to help with the first few categories of injuries, it was obvious that a good plastic surgeon was required. Two teams from the UK, were sponsored by IDEALS, from Morriston Hospital, Swansea, and Oxford, These were led, respectively, by **Tom Potokar and Tim Goodacre**. The advantage of sponsoring these teams was that first class treatment was carried out in Pakistan and training links were developed with the UK. IDEALS sponsored a Fellowship for the Director of the Karachi Burns Unit to visit Morriston Hospital during the summer of 2006.

IDEALS was able to supply substantial humanitarian aid including the building of a village that had been devastated. Farm labourers quickly acquired the skills of carpentry, plumbing and bricklaying when building was clearly the priority. When this massive project was presented it was considered madness, but despite numerous setbacks and delays it has been completed. It is now a self-contained community living independently, owning their own houses and no longer under the control of landlords who used to dominate their lives. A recent project was to initiate training in midwifery for students from the Tribal border areas by bringing a cohort of young women to Peshawar for an 18-month course. In border areas the respective maternal and infant mortalities are respectively 40 and 20 times those in the UK. Support for this course continues, despite the high cost, because of its potential for prevention of congenital deformity. The results of the first exams – they started in April 2009 – have been excellent. This was a good project in many ways, not only because of its inherent value, but because it gives young women the opportunity to engage in a useful career and develop as individuals.

A rehabilitation centre for individuals with chronic disabilities was set up in Manshera on the Kashmir border by an internationally famous disability organisation, but they withdrew their support in September 2008. The situation was saved by a generous contribution from a UK based donor, which covered the expenses for six months. In addition a group of ladies in Glasgow made a substantial donation after a fund-raising lunch. Both of these donations came from contacts with **Dr Andy Ferguson**, IDEALS Technical Advisor, who also works as a GP in Sheffield.

More recently John Beavis and **Sir Terence English** have been involved in introducing Primary Trauma Care to Gaza, Palestine, and the first major course took place in November 2009. The next is planned for February 2009 and will be conducted under supervision by local staff, trained to "Trainer level". Eventually this project will be promulgated entirely by local Gazan colleagues. The forgotten

ravages of war are apparent in the children whose development, both physical and psychological, is thwarted by the siege conditions of malnutrition. The Orthopaedic Surgeon who accompanied John was **Graeme Groom** from King's College Hospital with whom Fellowships in Limb Reconstruction will be arranged at King's for Gazan and North West Frontier Pakistan surgeons.

This story is given, not as an example to be emulated, but as a display of remarkable achievement in response to simple need, and the ingenuity of one with imagination and humanity. Excellence is seldom achievable, but success is to be measured in terms of immediate gains, when delay would be disastrous. John Beavis's experience, hitherto rather unsung in orthopaedic circles, is a matter of some pride for Orthopaedics. He did not set out to raise financial support, but it has been visited upon him, and his efforts appropriately rewarded by personal generosity

There is an abundance of messages here; few will be capable of imitation. All of us have experienced the pleasure of achieving a perfect reduction of a displaced fracture; few have mended an entire community. *(Also one should never trust a categorically pessimistic physician!)* idealsuk@aol.com

BANGLADESH

On 16 December 1971, Bangladesh became a sovereign independent state after a nine month war of liberation. The country at that time had only one orthopaedic surgeon and a single Orthopaedic Department with few beds in the pioneer medical college, Dhaka Medical College. This facility was inadequate to meet the demand of orthopaedic treatment required of the thousands of injured freedom fighters.

In early 1972, foreign aid and a helping hand was extended to help this new country meet its immediate needs. In the field of Orthopaedic Surgery, it is worth mentioning the visit of Mr.**J.N.Wilson,** the renowned British Orthopaedic surgeon who was to examine and ascertain the ways the British Government could help. About this time Dr.**R.J.Garst**, an American missionary orthopaedic surgeon and his wife, visited Bangladesh. He approached and persuaded the Bangladeshi government to allow him to accommodate all war injuries in one place, with which the government gladly agreed. The outpatient building of **Shaheed Suhrawardy Hospital** at Dhaka was converted into a 100 bed in-patient hospital. This was the establishment of the first independent trauma management unit in Bangladesh sowing the seed of orthopaedics as a surgical specialty.

Within eight months the majority of the war victims completed their treatment, and now the doors of the hospital which had expanded to 250 beds, were opened to general orthopaedic patients. What followed for the next eight years may be considered as the **'emergence of orthopaedics'** in Bangladesh. Post-graduate courses in Orthopaedic surgery and Physiotherapy under the University of Dhaka were initiated in 1973. The first batch of nine locally produced orthopaedic surgeons qualified in 1976.

In 1978, this orthopaedic hospital was transferred to a new building, consisting of 500 beds, the 'Rehabilitation Institute & Hospital for the Disabled **(RIHD)**. Later its name was changed to 'National Institute of Traumatology and Orthopaedic Rehabilitation **(NITOR)** in 2002. The institute became and still is the prime centre of orthopaedic service and training for orthopaedic surgeons, nurses, and physiotherapists in Bangladesh. By now there were over 250 orthopaedic surgeons working throughout the country.

By 2002, the infrastructure in terms of departments and manpower had expanded sufficiently to decentralize the role of NITOR. Postgraduate training and courses were introduced in the country's only Medical University (BSMMU) and eight other Government Medical College Hospitals. As a result, Bangladesh has now over four hundred orthopaedic surgeons, mostly trained locally and employed by the Government of Bangladesh.

Bangladesh is a country of 150 million people, and one of the most densely populated. The ratio of orthopaedic surgeons to patients is still far below the standard set by the World Health Organization. But, it may be said that the numbers of orthopaedic surgeons has improved dramatically so that we now look forwards to improving the quality and standard of our service. I believe that we are ready to enter the 'modern era of orthopaedics**.'**

Towards this end, and on behalf of the Bangladesh Orthopaedic Society, **Professor Mohamed Iqbal Qavi** announces the forthcoming Annual Meeting of the Society, to be held on 23 and 24th February 2010 (BOSCON 2010), along with pre- and post- conference workshops. As chairman of the organizing committee, he extends a hearty invitation to attend this conference.

drqavi@yahoo.com

In relation to the above, we have received an invitation from the British Council in Bangladesh, where the project Manager for the charity, INSPIRE, has the authority from the Department for international Development, to consider applications for funding:-

Omar.faruque@britishcouncil.org

Fergus Paterson informs us of his forthcoming trips to India, in March, to help the Noon Hospital in Rajasthan set up an orthopaedic unit, and from there to Mpumalanga to work with **Ken Rankin**, about whom we have written in the past.

EAST AFRICA

Of a quite different mode of support, has been the regular contributions to orthopaedic activity in East Africa, by Professor **Geoffrey Walker.** Although he has long since retired from operative surgical practice, his dedication to clinical teaching of physical examination, has long been a mainstay of his visits to the Black Lion Hospital in Addis Ababa. Here it was that he held the Professorial Chair in Orthopaedics for two years, and ever since has participated in instructional meetings all over East Africa. He reports from the recent meeting of

COSECSA in Kigali, Ruanda, where the scars of war are fading and clinical medicine establishing itself. He describes an excellent meeting, attended by many from all over East Africa, held in a fertile and vigorous country, currently applying for membership of the Commonwealth of Anglophonic nations.

Geoffrey in presently in Ethiopia attending a meeting of ESOT (Ethiopian Soc. of Orthopaedics and Trauma) designed to cover :

1. Non-operative Treatment of Fractures,
2. Intra-medullary Nailing of Long Bones, using the Sign Nail.
3. Action and Interaction of the Woghesha, the thousands of unorthodox practitioners,- bone setters and the like - who comprise the only support for the injured in many rural districts. Offers of basic instruction in regard to the circulation and innervation of the arm, are not always welcomed…but the possibilities are enormous.

Geoffrey has a regular invitation to attend the meetings of the various professional societies – ESOT, COSECSA, SSE etc. Rarely does he miss one, and he contributes hugely to the basic principles of clinical diagnosis in musculoskeletal medicine. His friendship with so many colleagues in East Africa, equips him as a diplomat and the ideal link man between countries and surgical disciplines.

S I C O T

Finally, and on the same note, the annual meeting of **SICOT**, is to take place in Gothenburg, Sweden, this autumn.

Prof Björn Rydevik, Conference President – Gothenburg, AIC 2010 writes**,**

“I wish to extend a warm welcome to Gothenburg, Sweden, for the SICOT/SIROT/SOF conference, **31 August - 3 September** this year. The local organising committee in Gothenburg is inspired by the success of the SICOT/SIROT/RCOST conference in Pattaya,Thailand, in the autumn of 2009. We are working hard, together with the executive committees and administrative offices of SICOT and SOF, to make the conference in Gothenburg an interesting and enjoyable educational event. The Annual International Conference in Gothenburg will be a combined meeting with SOF, (the Swedish Orthopaedic Association.)”

This meeting will include a session devoted to World Orthopaedic Concern, and will include contributions from WOC on clinical orthopaedics. Supporters of WOC are urged to get in touch with the President of WOC(Int) with suggestions for inclusion in the session under our name. These meetings of SICOT are our major opportunity to display the achievements of WOC, before an international audience, and thereby to attract support and participation. Please write to **golyhoek@hotmail.com** as soon as possible.

Mike Laurence.