

## Mitchiner Memorial Lecture 1999

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Major General Philip Mitchiner had, in a sense, the best of both worlds. He was, on the one hand, an academic surgeon at St. Thomas' Hospital, London, with extensive civilian experience, and on the other hand a military surgeon, having progressed through the Officers Training Corps of London University to the Territorial Army, then wartime service in the United Kingdom and the Middle East. He was therefore in an ideal situation to understand the various aspects of war surgery and its relationship to civilian practice, and also the requirements for training in this demanding surgical domain. It is interesting to note that in 1916 Mitchiner deployed to Serbia for some years in an active service role, with little war surgery experience. He distinguished himself not just surgically, but in the domains of Army Health, Command and Administration. He also took the opportunity to learn the Serb language. In 1999 British military surgical teams are again deploying to the Balkans, hopefully for lesser periods of time, and again the surgeons involved may have different levels of war surgery experience.

"Plus ça change plus c'est la même chose!" Mitchiner was sometimes an abrasive character, thought by some to cover a natural shyness. He certainly took no nonsense, but had a great sense of humour. He was widely regarded as an excellent teacher, both in his teaching hospital and in the Middle East. With his wide knowledge of civilian and military surgery he readily understood the importance of training in peace for war.

At the present time, in the United Kingdom and Western Europe as a whole there is little opportunity for training in war surgery. Although the incidence of gunshot injury has increased it is still a rarity, testimony to a sophisticated evolution of civilization, is mainly inflicted by handguns or shotguns, and there exists a remarkable and sometimes breathtaking ignorance, even among senior surgeons, with regard to the management of such wounds. There is also, understandably, sometimes an awe or even fear in the approach to gunshot wounds, there being a feeling that they are something special and mysterious. These views have, in fact, existed since the time of John Hunter.

In former years, in the RAMC, those of us who were trainee surgeons, at about Senior Registrar level, had the opportunity to experience gunshot wounds and bomb blast injuries under consultant supervision at Musgrave Park Hospital, Belfast, supported by visits to the Royal Victoria Hospital, Belfast. This prepared us for subsequent deployments to, for example, the Field Surgical Team in Salalah, Sultanate of Oman, where one found oneself the only surgeon for several hundred miles, dealing with the full range of battle injuries. It is at such times that one realizes the importance of a wide training for military surgeons.

These opportunities have now diminished. There have been short sharp high intensity battle surgery experiences in the Falklands and the Gulf. Currently surgical teams are in place in

the Balkans, but how many of the cases seen are fresh battle injuries? Similarly teams from the International Committee of the Red Cross are in action in various parts of the world, but deployments are often of short duration for the surgeons involved, and many of the cases are not recent, but simply those who have survived long enough in any case to reach the teams.

What then is a military surgeon supposed to be, and how does he train in peace time for war surgery? It is to be remembered that the military surgeon may find him or herself alone in a Field Surgical Team or with only a limited representation of specialist colleagues. As far as RAMC surgeons are concerned the only time neurosurgeons, thoracic surgeons, etc. are likely to be present is in the event of significant conflict which has necessitated mobilization of Territorial Army hospitals or individual specialists. This is unlikely to occur in a "quickmove" situation. The United States military medical services have the resources to deploy such specialists more readily, and compartmentalization of training and surgical practice increasingly demands this. As Sir Winston Churchill said "The Americans usually get it right, but only after they've tried everything else first!". However, the nature of conflict has changed and the future may require rapid deployment of smaller, highly mobile intervention forces such as Marine Corps Battalion Landing Teams, Air Assault formations, Special Forces and Ranger Battalions. Therefore the United States surgical support for such operations cannot be as lavish as before and, once again, demands the services of a true military surgeon.

The military surgeon must have a broad training in general surgery and trauma. He must be able to perform emergency procedures in the head, chest and abdomen. He must have a working knowledge of orthopaedics, but, fortunately, the advent of easily applied external fixators for field use has simplified this. An area often poorly addressed in British military surgical practice is the vital domain of vascular surgery, and there is little enough vascular trauma in normal British surgical practice anyway.

What is being described is a true general surgeon, and such a training no longer exists. Already surgical training is being shortened and becoming superspecialised, which may well be appropriate for present and future civilian surgical practice. One is uneasy when hearing surgical registrars maintaining that the preferred on call schedule should be one in five! Clearly the exposure to emergency cases during the training period must diminish considerably.

The training of a military surgeon, therefore, demands a special rotation that no longer exists. Perhaps military medical services should grasp this problem and develop appropriate rotations with suitable accreditation, and perhaps even military medical higher qualifications. Already military doctors can obtain additional recognition by working towards the Diploma

in the Medical Care of Catastrophes of the Society of Apothecaries of London, and it is hoped to progress from this to a degree in Conflict Medicine or Military Surgery at the Uniformed Services University of the Health Sciences, Bethesda, in the United States. This could be offered on a distance learning basis. Military Surgery accreditation could be developed and might even be incorporated into this programme as an option, with recognition of training that no one else has. The reality is, however, that the military surgeon must be trained in areas additional to clinical surgery. He or she should have an understanding of Army Health, Tropical Medicine, Emergency Medicine, Aviation and Diving medicine. Whether he likes it or not Command and Administration are part of the job. Medical soldiers and units require this and the military surgeon may be the senior medical officer. For example, in a British parachute assault operation the Field Surgical Team commander is the senior medical officer in the crucial first wave and must function as a medical staff officer as well as surgeon until the additional medical resources deploy in subsequent waves, if they ever do! Military surgeons with the aptitude for and interest in attending staff college should be encouraged to do so instead of being told to stick to cutting and keep their noses out of the domain of the Command and Staff trainees Mitchiner understood this well and spent considerable time in command and public health areas. It is of interest to note that in the South African National Defence Force the South African Military Health Service is the fourth arm of the defence forces, with equal status to the Army, Airforce and Navy, serving all. It has its own uniform, staff structure and budget and runs its own Staff College. This allows specialists to obtain staff training and opens up all areas. No more is there the saga of, for example "Brown Jobs" being told to keep out of aviation and maritime matters and mind their own business! Mitchiner would have revelled in it! There also cannot be, by definition, the sort of medical inter-service rivalry seen in the British forces which sadly led to blinkered in-fighting over the share of resources, obscuring the big picture and thereby almost losing everything.

With regard to clinical training rotations through appropriate areas can be arranged and there is no doubt that virtual reality training will play an increasing part in the future. The exciting virtual training laboratory at Bethesda is an example. There is however no substitute for the real thing. How, then, in the absence of significant battle casualties, does the military surgeon receive clinical training in peacetime to prepare for war?

One solution is for surgeons to work in institutions in countries in which gunshot wounds and other trauma cases are commonplace and in which institutions are organized to deal with this. An obvious location for this is selected trauma centres of excellence in the United States, and already RAMC surgeons have attended Shock Trauma Baltimore, gaining valuable experience.

Another solution is to come to South Africa. The social situation in South Africa has resulted in large numbers of weapons being in circulation. Under the previous dispensation the white population were widely armed, and many of these weapons are stolen. In addition weapons brought into the country for use by the liberation movements fell into the hands of the criminal populace after the evolution of the new political dispensation. Furthermore there is a thriving cross border trade in military weapons from penniless soldiers in the armies or rebel movements in neighbouring countries. The result of this is a considerable number of gunshot wound patients being brought to South African hospitals. Unlike the United States a considerable number are from military type high velocity

weapons. The South African Police Service, and the South African National Defence Force, acting in police support, also utilize such weapons. There is further trauma from tribal rivalries, political factionism, taxi wars and the like.

Advantages for the UK military surgeon training in South Africa are:

1. The South African medical system has evolved from the British one, and UK doctors rapidly assimilate.
2. Significant proportion of high velocity injury
3. Exposure to First and Third World type trauma.

In addition the overly stretched South African public medical facilities do not have the depth of staff, equipment and resources offered by their counterparts in the United States and this is perhaps closer to what a UK surgeon is likely to experience in the field. There is a great deal of gunshot wound management experience in South Africa, and significant contributions have been made to the management of cases and to the world literature. Many of the South African senior surgeons, including academic professors, were required to do National Service during the border wars, and subsequently rotated regularly for 2-3 week periods through the active Field Surgical Teams on the border, regularly updating their battle surgery expertise.

In the late eighties the ANC mounted a bombing campaign across the Witwatersrand, the main victims being civilians of all races. As a result of this, and the prevalence of gunshot wounds I personally dealt with more battle type injuries in my first three months in Johannesburg than in my entire military career.

Experience can be obtained in a variety of different scenarios. For example, the Trauma Unit of Johannesburg Hospital is equivalent to an American Level 1 Trauma Center, serviced by a helicopter service. There is full clinical audit and all resuscitations are videotaped for discussion. At Baragwanath Hospital the clinical load is greater and the resources less and it is commonly in an overload situation, which affords realistic military surgery training. The third scenario is the well developed private sector hospitals, the largest and most developed outside the United States, and the fourth the poorly financed and staffed peripheral public hospitals, all of which deal with gunshot wound patients. The Johannesburg hospitals deal with over four thousand gunshot wound resuscitations annually, with many more simply dealt with as out patients.

It is interesting to note that an RAMC surgeon has already gained experience in the trauma unit, Johannesburg Hospital, and negotiations are under way to allow members of the Royal Australian Army Medical Corps to gain experience at Baragwanath Hospital.

If we are to provide surgical care to soldiers in time of war it is necessary that such training takes place. We owe it to our patients not to have to learn from scratch every time there is a conflict. The hard-won lessons of military surgery of the past must not be forgotten, and research in battle wounds must continue, in order to modify or adjust previous policies and to develop better means of wound care, resuscitation, movement of patients, teams, equipment. Military surgical research is not just about clinical patient care, it is also about logistics, tactics and strategy. Every military surgeon should, at some stage, become involved in such work, giving it the academic attention it deserves.

The fully trained military surgeon is probably the last true general surgeon. He or she is, as indicated earlier, much more than just a trauma surgeon. Training in peacetime for war surgery implies exposure to the nearest possible scenario. In the absence of significant numbers of battle casualties alternatives

must be sought.

South Africa can provide the clinical experience as well as the academic and research components so vital for development and recognition. It therefore provides the combination of teaching hospital ethos and practice along with

military surgery practical experience, a combination which Mitchiner himself exemplified. All of this occurring in a country in which the newly formed Royal Army Medical Corps had its first terrifying exposure to the realities of modern warfare. Mitchiner would have loved the idea!!!