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EDITORIAL

Supporting the evolution of obstetric anaesthesia through outreach programs

Whether living in North America, Europe or Australia, one does not have to look far beyond one's own borders to find countries where the standards and practice of obstetric anaesthesia are very different from those we now take for granted as the expected norm. In much of Africa and Asia the lot of pregnant women is deeply disturbing, and even in areas of transition, such as the former Soviet block, the Balkans and Baltic states, there is much still to be done. It is not just that lack of resources limits access to good medical care, but there are often deep-rooted social or political attitudes that cause the problems to be denied. In other places, the social and medical fabric of society has been destroyed by continuing internal or cross-border conflicts.

Global maternal mortality exceeds 500 000 each year, and almost all of these deaths occur in the developing world.[1] Recent appraisal at the half-way stage of United Nations Millennium Development Goal 5 (to improve maternal care, and specifically to reduce the maternal mortality ratio by 75% by 2015) suggests that progress has been disappointingly slow, and particularly poor in South Asia and Sub-Saharan Africa.[2]

Obstetric anaesthesia as a discrete specialty barely exists in the developing world, but any acute receiving hospital will have to deal with the obstetric issues of obstructed labour, fetal demise, ruptured uterus, puerperal sepsis, massive haemorrhage and other related disasters such as vesico-vaginal fistula and HIV AIDS. Obstetrics largely comes as part of the general surgical package, and of all the surgical emergencies in rural hospitals, the obstetric cases are those most commonly requiring urgent attention. The development and evolution of obstetric anaesthesia may be targeted either specifically or, more commonly, as part of a broader surgical or hospital-wide project.

Whilst the needs of pregnant women in the developing world may vary surprisingly little, the needs of the healthcare systems vary enormously, and organisations active in the field have established widely diverse programs to try to improve standards of healthcare training and practice. Examples of general, across-the-board non-specialist support range from the small faith-based mission hospitals of Kenya and South Africa, and the Anaesthetic Clinical Officer training program in Blantyre, Malawi, (initially funded by the UK Department for International Development and run for many years by Paul Fenton), to large multifaceted organisations such as the International Committee of the Red Cross and Médecins sans Frontières, which operate principally in areas of civil conflict, but whose primary aim is not training.

Other groups, such as Kybele and the Obstetric Anaesthetists' Association (OAA) target obstetric issues specifically, and aim to provide more focussed educational outreach and support. The OAA mainly run short lecture-based refresher courses, but Kybele, an American-based charity, combines formal teaching with hands-on training in obstetric anaesthesia and allied areas from a multinational faculty, usually over a two-week period. This edition contains an article by Kopic et al.[3] that demonstrates the effectiveness of a well-thought-out two-week outreach program in several units in Croatia. Large- and small-scale formal lectures were combined with practical, hands-on, clinical tuition, and with continuing contact with the hospitals after the teams returned home. The follow-up survey of local practice demonstrates a sustained and increasing use of regional techniques, particularly for caesarean section. Epidural analgesia for labour increased slightly as well, but the overall use continues to be low, which probably reflects the greater systematic changes necessary to provide an epidural service.

This is no mean feat since, whilst no-one doubts the great clinical need, the question every organisation operating outreach programs has to ask itself is whether they are doing any lasting good. Have the efforts of the visitors been sustained, or does practice revert to the old status quo after the visitors have gone? This article from Kybele shows that sustained improvement is possible, at least in a relatively sophisticated European country such as Croatia, and the organisers of the venture are to be congratulated on this.

Anyone who has worked in the developing world will know the frustrations of being an anaesthetist unable to affect the many obstacles that limit the access of women to good medical care, and the problems faced when trying to encourage obstetric anaesthesia. For a start, many women who need hospital care get to hospital too late or not at all, because they are deterred by bad local rumours, unable to pay, or unable to make the journey.

The hospitals often have poor medical facilities, faulty equipment and unreliable supplies of drugs, gases, needles etc. Much well-meaning support from richer nations is poorly directed, and a visit to any hospital that has been the recipient of "Aid" will almost certainly reveal a room packed with unwanted equipment, monitors, ventilators and other assorted bits of kit from well-meaning donors, which simply collect dust. A myriad of reasons cover why things don't get used (too complex, broken, impossible to repair/service, incompatible with other equipment, unreliable electricity or gas supplies, too expensive to run etc), but all reflect wasted money and opportunity.

Medical staff in state/university hospitals are often poorly paid, and senior staff may be lured into private practice, which usually runs in tandem with the state system, but siphons off the best of personnel, time, equipment and drugs from the state sector. Amongst medical specialities, anaesthesia has a poor profile, is an unpopular speciality with graduates, and is usually considered completely subservient to the surgeon, who often wields god-like authority. In many areas, anaesthesia is administered by clinical officers without medical qualifications but with limited initial training and non-existent continuing education. Access to modern concepts of safer practice, education and advancement is often limited, and local cultural and social issues can play a role in discouraging free debate and questioning of current medical practices.

Despite these limitations, there seems to be an enormous hunger for advancement in obstetric anaesthesia amongst practitioners in the developing world, almost certainly based on the terrible reality of the risks that motherhood presents to their own people, family and friends. There is also a considerable interest from individuals in the developed world in helping support a change for the better, but disappointingly little coordination and communication between projects, and no central registry anywhere of what is being attempted by whom.

Having identified the needs and where they exist, there would seem to me to be four key components to making a project really effective, worthwhile and successful. Firstly, we can only realistically hope to change practice for the better where there are enthusiastic local practitioners keen to listen, learn and drive change forward themselves. Local zealots are needed to take new concepts forward, and to convince their colleagues of their worth by example and persuasion. Only by working with these key people in the local medical community can we expect to achieve useful goals. These local heroes may not be the traditional heads of department, but other inspirational people who see the value of change, want to be part of it, and may be less constrained by political egos, bureaucracy and private practice. A crucial step in establishing any project, therefore, is to identify these key people and to work with them to develop a program appropriate to local needs. This requires a good deal of planning, often including a reconnaissance trip to assess the situation and to determine what goals might reasonably be achievable.

This leads to the second necessary element, which is teaching and supporting appropriate concepts, in an appropriate way. This needs intuition, sensitivity and an ability to listen and to grasp the local needs and possibilities. It is unwise to assume that we know what local practitioners need without establishing the local circumstances. For example, whilst discussion of the benefits of epidural ropivacaine, combined spinal-epidural techniques or patient controlled epidural analgesia may stimulate the intellectual egos of the educated and wealthy minority in an audience, particularly those with private practice interests, such topics may be of little relevance to the majority who do not have access even to epidural needles. Discussion of these state-of-the-art techniques is not necessarily inappropriate, but it needs to be part of an overall balanced package with a clear understanding of what can feasibly be achieved at local level. In general, it seems wise to focus on fostering a full understanding of the basic problems underlying obstetric anaesthesia, and to encourage local practitioners to find local solutions, while continuing the fight to change practice for the better.

Although it may be assumed that the increased use of spinal anaesthesia could have a huge impact on anaesthetic morbidity and mortality in the developing world, and is almost certainly safer than traditional general anaesthesia,[4] it can only be introduced safely where there is a reliable supply of vasopressors, and an appropriate understanding of asepsis and hypovolaemia. In terms of general anaesthesia, rumour has it that ketamine is widely used in some countries (particularly francophone regions) as the sole anaesthetic agent for caesarean section, but no-one admits to such, and few data exist on its use or complication rates. It is easy to presume that we should be teaching all anaesthetic practitioners to use standard rapid sequence induction with intubation when performing general anaesthesia for caesarean section. However, in the hands of a minimally trained, unsupported anaesthetic officer working in a small isolated rural hospital, is this technique (which is fraught with hazard) really so much safer than using ketamine as the sole agent? Truly, we do not know!

Thirdly, because of the difficulties of teaching in an unaccustomed environment, members of a visiting faculty need to have particular qualities. A team member who does not engage with the local practitioners well, or pitches their presentations inappropriately, is unhelpful for both the local unit and the outreach program organisation. For some, particularly on a first visit, the experience will be a considerable culture shock. The realities of anaesthesia in the developing world, and

the necessary compromises, are difficult for some modern anaesthetists to accept (for example, reliance on clinical monitoring in the absence of equipment, use of unfamiliar techniques and drugs etc).

Finally, on-going support and follow-up are needed to cement relationships between organisations and to provide continual reinforcement and encouragement for the local practitioners. This is often the hardest thing to achieve, because it requires financial and personal commitment beyond the excitement of the initial interaction. Kybele has demonstrated this commitment in Croatia, as has the remarkable Anaesthesia Project in Afghanistan, run by the Norwegian military, which takes small anaesthetic teams (doctor and nurse) into two hospitals for one week every month to help train and support the local staff (Personal Communication: V Dahl). Repeatedly using the same expatriate staff helps provide continuity of training and trust. In the UK, organisations such as the Tropical Health and Education Trust help develop long-term links between health institutions in developing countries and their counterparts in the UK.[5]

Building on initial experiences of working with anaesthetists and obstetricians in Turkey, Medge Owen and her group at Kybele have gone from strength to strength, and fully appreciate the greater difficulties involved in taking an expatriate team to the developing world than to countries in Eastern Europe. Lessons continue to be learned, but on the evidence presented here, it is possible to make a real and worthwhile difference, so keep up the good work!

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