A different kind of developing world

Dr Camille Yip, a recipient of an ANZCA overseas aid trainee scholarship, recently returned from Inner Mongolia where she participated in a week-long visit with the No Pain Labour and Delivery – Global Health Initiative (NPLD-GHI).

The NPLD program

On June 10 I headed off to Baotou in Inner Mongolia, China, for the 2017 No Pain Labour and Delivery – Global Health Initiative (NPLD-GHI) program visit to Baogang No. 3 Hospital for staff and workers.

The aim of the 10-year obstetric anaesthesia "train the trainer" program is to help Chinese hospitals establish obstetric anaesthesia systems that will provide safe and effective neuraxial labour analgesia for all parturients. This is in response to China's high caesarean birth rate (estimated to be more than 50 per cent of all births) with the infrequent use of neuraxial analgesia being one of the contributing factors.

Each year, a number of hospitals in China are visited by a multidisciplinary program team comprising anaesthetists, obstetricians, midwives, neonatologists and interpreters. During the week-long site visit the team participated in education and exchange with their Chinese counterparts using a structured curriculum covering epidural analgesia, neonatal resuscitation, intrapartum care, and emergency caesarean section.

Baotou

Baotou is an industrial city in the Inner Mongolia autonomous region of China. Its metropolitan area has a population of approximately two million. It has been one of the beneficiaries of the technological boom, and is currently the top source of rare earth metals in the world. It is on the edge of the Gobi Desert and is about a 90-minute flight from Beijing.

Baogang hospital

At Baogang Hospital there are approximately 10,000 births each year. In 2003 an epidural service was introduced. An estimated 50-80 per cent of parturients now use epidural analgesia in labour.

During the week the NPLD team members spent time with their Chinese colleagues and shared their clinical experiences. Other activities included an expert panel public Q and A forum, an obstetric emergency simulation scenario and lectures and tutorials.

The highlight of the week was a chronic pain consult of a patient with unilateral lower leg weakness, numbness and pain by team member Dr Pamela Flood. The patient had been bedbound for three months after being given an emergency caesarean under spinal anaesthesia. Extensive investigations apparently revealed no significant neurological or vascular pathology. After a thorough two-hour consultation and review by Dr Flood the patient was diagnosed with complex regional pain syndrome. After explanation and reassurance the patient agreed to mobilise. For the first time in months she finally walked. The local specialists were particularly impressed with the degree of patience, empathy and understanding shown towards the patient.

My general impression is while there is technical expertise to provide a 24-hour obstetric anaesthesia service they would benefit from better resources. They currently practice intermittent anaesthetist manual bolus top-up for maintenance of epidural analgesia which is labour intensive and has an apparent high rate of epidural failure with long labours. Having enough syringe drivers and/or pumps would allow delivery of better quality analgesia. However, systemic differences in the scope of midwifery responsibilities (midwives did not participate in the monitoring of epidural analgesia, that is, sensory/motor blockade) meant attendance by an anaesthetist every one to two hours seemed to be a safer option.

Successes, challenges and reflections

The local doctors were very friendly and open towards us, were very eager to learn and had many questions for us. They were also very helpful. On one occasion they helped us assemble a simulation delivery suite bed space and operating theatre with all the equipment we asked for within a short period of time to facilitate the "obstetric anaesthesia emergency" scenario.

While my other NPLD team members were busy teaching technical skills such as neonatal resuscitation, surgical techniques in lower segment caesarean section and the use of birthing balls I found there was little to add to their technical expertise in terms of performing neuraxial anaesthesia and subsequent management. As they were adept at labour epidurals, our involvement was mainly in regards to safety and quality aspects of providing care, such as strategies to prevent systemic error.

One such example was the labelling of syringes in operating theatres, where all clear-colorless drugs were labelled with the drug name written on the syringes with the same marker pen.

Doctor-patient relationships tend to be a paternalistic one in China and the role of the family is different. Husbands gave consent for their wives' epidurals, and while they were able to accompany their wives during labour they were not present during the actual birth (which occurred in an adjoining room with other parturients naked from the waist down), nor were they allowed into the operating theatre for elective or emergency caesarean sections.

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Visiting hours in the neonatal intensive care unit were very short and parents rarely got to hold their premature newborns. Speaking to the local doctors about the high caesarean rate it seemed there were multiple factors at work. Both patients and obstetricians are risk-averse – the women did not want to take the perceived "risk" of a failed epidural, or the "risk" of a failed trial of labour, or the "risk" of an emergency caesarean section – therefore arriving at the "more definite" solution of an elective caesarean section. This may sound odd but does have to be taken in the socio-political context, as most patients have to pay for their own healthcare, and for an entire generation women only had to give birth to one child.

The week passed very quickly and, regrettably, due to a tightly-packed schedule of round-table discussions, lectures, briefings and debriefings there was limited clinical time spent on the labour ward to observe our local anaesthesia colleagues' day-to-day routine. I felt this was important because it is part of a needs assessment for our subsequent work during the week. In one case – during the debriefing of our emergency obstetric scenario (which included a difficult intubation event) we were asked about intubation as part of the obstetric rapid sequence induction – it turned out the local practice was to induce the patient, continue face-mask ventilation and let the surgical team immediately deliver the fetus, before taking time to secure the airway with an endotracheal tube. Their rationale was so that anaesthesia time did not contribute to delay of delivery of the fetus we then had to have a discussion on the importance of maternal oxygenation and aspiration risk.

Hopefully, exchange programs such as NPLD will help developing countries like China improve their standard of care, through exposure to contemporary practices. At the same time, we also have much to gain by observing others, to uncover assumptions and flaws in our own practice in order to improve for the benefit of our patients.

Dr Camille Yip, FANZCA
Originally trained in Sydney, Camille has been working in Singapore since her provisional fellowship training year in 2016. She will be returning to Sydney later this year.

Reference:
Hu, L. Q., Flood, P., Li, Y., Tao, W., Zhao, P., Xia, Y., ... & Wong, C. A. (2016). No Pain Labor & Delivery: a global health initiative's impact on clinical outcomes in China. Anesthesia & Analgesia, 122(6), 1931-1938

Above from left: Baotou city view from hotel window; inside the Baogang Hospital; NPLD team and Baotou heads of department (front row); local anaesthetists/obstetricians/nursing and neonatology staff (middle and back row).