GLOBAL HEALTH OUTREACH: Providing and teaching regional anesthesia in a resource limited environment

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The use of regional anesthesia (RA) in the obstetric population is widely utilized in many parts of the USA and Western Europe[1]. However, its use in Eastern European countries was still reported to be low. In collaboration with Kybele, a group of obstetric anesthesiologists, obstetricians, and anesthesiologist worked with a local teaching hospital and successfully increased the use of RA[2]. Over the course of 4 years, this group demonstrated that they successfully increased the use of RA from 14% to 25%.

In Serbia, the use of regional anesthesia and analgesia techniques in orthopedics and general surgery cases have been low, despite sporadic efforts to increase the use. Members of the Department of Anesthesia at General Hospital Leskovac, Serbia (LGH), asked for help in order train physicians in the use of RA techniques for orthopedic and general surgery cases. Some of the challenges to implementation include: constant access to ultrasound equipment, lack of familiarity of nerve blocks by surgeons and anesthesiologist, and patient fear.

LGH is large general hospital in the south of Serbia, and major referral center for 250,000 people. A 4 day teaching visit by fellowship trained regional anesthesiologist from the USA was arranged. An ultrasound (eZono 4000, Jena, Germany) and 100 mm needles (Stimuplex A, B Braun, Melsungen, Germany) were available during the visit. During the stay, the focus of the nerve blocks was on truncal blocks as many patients had Cesarean sections under general anesthesia. During that period we performed 22 bilateral Quadratus Lumborum (QL) block. 21 patients had adequate post-operative pain control. During the visit, there was also extensive education regarding nerve blocks and ultrasound. By the final day, the anesthesiologist were performing these nerve blocks independently.

Since the visit, we stayed in contact with the team in Serbia. They have continued to offer QL blocks to patients and expanded which blocks they are offering, including adductor and popliteal. They have performed over 70 QL blocks at this time. They have presented their work at local meeting and continue to offer top level care to all their patients. We plan to continue working together with the local team and keep track of nerve blocks being done and progress being made.
A several day teaching visit can significantly improve the skills of local anesthesiologists. Visits by foreign medical groups are quite rare in Serbia and our visit drew everyone's attention. Although we took care of the patients our primary goal was physician education. It is important to focus on few blocks only, so that the local team can gain experience in blocks that their patients need. By concentrating on QLB we achieved satisfactory performance in two of the local anesthesiologists. We plan to monitor regional anesthesia use at LGH in the next 12 months. Future visits are planned in order to evaluate performance of trained people, teach local anesthesiologists additional peripheral nerve blocks and train physicians from surrounding hospitals. During each of these visits a formal educational meeting will be organized for physicians from Leskovac and surrounding towns. Based on our experience and previous Kybele work 5-10 people teams are usually appropriate for this part of the world. We plan to do teaching visits twice a year.

While people in the US may be familiar with the similar projects in Latin America or Subsaharan Africa, very few people know about opportunities that exists to do these projects in Eastern Europe. We also plan have informative presentations for US physicians who would like to volunteer, and involve residents in the last years of their training.
