



Regional Anesthesia in a Country of Contrasts - The Republic of the Philippines

By Andrea Ralya, MBA

The Republic of the Philippines is an archipelago of over 7,000 islands. Administratively, the country is divided into three island groups, Luzon, Visayas, and Mindanao. There are 171 languages spoken in the country, with English and Filipino used as the two official languages. The territory is vast, however; the population centers are in the major cities, with many rural areas in the various islands. According to the national Department of Health web site and the National Statistics Office (accessed 11/11/10; doh.gov.ph), the country is full of contrasts related to health, income, and education. Public health concerns include tuberculosis and dengue fever. World Health Organization Statistics (www.un.org; accessed 11/1/2010) show that the Philippines ranks fourth in the world for the incidence of tuberculosis and over 5 million people are infected annually. Dengue fever outbreaks occur in the densely populated cities because of water collecting activities by people who have an inadequate water supply. It is within this setting that Dr.

Penafrancia Catangui Cano practices regional anesthesia. Dr. Cano stated, "The population of my country is 97 million. The proportion of the population living below US\$1.25 a day in 2006 was 23%, or around 20 million people. At the same time, about 44%, or over 40 million Filipinos were living on less than US\$2 a day. Poverty is a significant problem in the country and with that, the majority of Filipinos seeks health care in state hospitals, where health services are free. But the main problem is the government cannot subsidize these state hospitals with the proper equipment and monitors and their maintenance."

About Dr. Cano

Hard work and pursuit of education have always been part of Dr. Cano's life. She obtained a BS in biology as a pre-medical degree at the University of Santo Tomas, the Philippines, and was among the top fifty students in her freshman year, which enabled her to join an accelerated program. The program guaranteed her acceptance to the University of Santo Tomas College of Medicine, one of the top medical schools in the country. Dr. Cano took specialty training in anesthesiology at the largest state hospital in the country, the Philippine General Hospital, 1,500-bed medical center, which is affiliated with the University of the Philippines. She was board certified in 1995 and appointed Clinical Associate Professor at the Department of Anesthesiology of the University of the Philippines-Philippine General Hospital. At the same time, she joined the Faculty of the Department of Biochemistry of the University of the Philippines College of Medicine. She received a scholarship to study molecular biology at the Kobe University College of Medicine from the Japan Society for the Promotion of Science in 1996 and in 1997, another scholarship from Germany for a Fellowship in Transplant Anesthesia at the Rheinische Friedrich Wilhelms Uniklinik Bonn (University of Bonn-Medical Center). In addition, she was accepted as one of 35 International Fellows chosen from more than 300 applicants to attend the XIIth World Congress of Anaesthesia held in Montreal, Canada in June 2000.



Dr. Cano in front of TheAsian Hospital in the Philippines.

Regional Anesthesia and the Philippine General Hospital

Dr. Cano practices at two hospitals, a private one and the government training hospital. This is because doctors are poorly compensated by the government and government doctors work only on a part-time basis. To supplement this income, doctors also practice in private hospitals. She stated, "Working conditions in both hospitals are very much a contrast. At the privately run Asian Hospital and Medical Center, where I do all types of cases, the monitors in the operating room and in the PACU are complete and there is one available per patient. Likewise, the equipment required for anesthesia is all provided by the hospital. This is in stark contrast to the government training hospital, Philippine General, where the amount of monitors is inadequate. In fact, residents have to buy their own portable pulse oximeters. Laryngeal mask airways (LMAs) are acquired from donations or from consultants, who give the residents

the used LMAs from the private hospitals and monitors are not always available in the PACU. A senior resident and medical intern are assigned to monitor patients using thermometers and blood pressure apparatus. With this situation, we make sure that patients are transferred to PACU only when they are stable, and with adequate reflexes, to avoid mishaps." The Philippine General Hospital has 50 operating room theaters with 33 staff members and 53 residents attending to the various surgeries. As Chief of the Orthopedic Section, Dr. Cano concentrates her time on orthopedic surgery cases. Three rooms are running at one time and she supervises the residents performing regional blocks for upper or lower extremity surgeries. The state hospital does not have the budget yet for a fully equipped and functioning block room. Because of this lack of a room, regional anesthesia is sometimes seen as detrimental as an anesthesia technique because it takes more time to perform and causes delays in the operating room schedule. Because most of the patients in the government hospital are indigent, they usually seek treatment when their medical conditions are already complicated.

Most of the patients scheduled for surgery present with many co-morbidities. This high acuity level poses "a lot of challenge on our part as anesthesiologists as with regards to anesthetic management." In addition to tuberculosis, patients present with cardiac problems, poorly controlled diabetes, sepsis, and lung impairment. Patients with these types of illnesses can benefit from the use of regional anesthesia. Dr. Cano said, "Before the introduction of nerve stimulator and ultrasound-guided regional anesthesia, there were only practically two types of anesthetic techniques - general anesthesia or neuraxial block. If ever nerve blocks were done, they were mostly done by means of paresthesia. And yet now, we have a third choice, regional anesthesia." The benefits for these patients include fewer hours spent in the PACU and a decreased length of stay and a discharge to home without nausea and vomiting and with sufficient analgesia.

Teaching residents and medical students is her passion and she is gratified by the ability to pass on her knowledge to the future generation of anesthesiologists. However, her greatest reward is her ability to serve indigent patients. In fact, Dr. Cano has worked as both a Clinical Associate Professor and now, as Chief of the Orthopedic Section, for 15 years without compensation because there is no government funding for a salary.

Professional Networking and Gaining and Sharing Knowledge

Since 2005, after realizing the need for more scientific knowledge and hands-on experience to perform nerve block among anesthesiologists in the Philippine, she began her venture into the sub-specialty of regional anesthesia by attending workshops and undergoing preceptorships in the United States, Canada, and Europe. She had a hard time convincing the hospital administrators and departmental chiefs to buy a nerve stimulator at first. The thought was that because the equipment is so expensive and only a few doctors knew how to use it, the return on the investment was a consideration against purchasing one. Undaunted and prepared with the new skills, she purchased her own unit. Three years ago, Dr. Cano recalled, "My senior colleagues laughed at me when I initiated and advocated the use of ultrasound for regional anesthesia. They were asking why should one use a very expensive machine for regional blocks?" Since I believed so much in the advantages of doing nerve blocks as compared to other anesthetic techniques, I bought a second-hand ultrasound machine." She paid for the equipment on an installment basis for 1 year and she takes it with her for her own personal use whenever she needs it at the hospital.

She continued to seek more educational opportunities about the developments in regional blocks and attended the NYSORA Pan Asian Conference in Kuala Lumpur, Malaysia in 2009. As a member of the NYSORA networking group, she stated, "I was lucky to be chosen as one of the Associate Faculty members at the NYSORA Pan Asian conference in Bangkok, Thailand, in May." Dr. Cano said, "I was elated to be given the opportunity to teach and share my expertise with other anesthesiologists from Asia. This recognition is the fruit of several years of hard work and also it is my tool to develop collaboration and intellectual knowledge." At the Bangkok conference she met Dr. Manoj Karmakar, a world opinion leader in regional anesthesia, and she worked with him during a workshop held in the Philippines. When asked what about the benefits of being a member of the NYSORA network, she replied, "It is through NYSORA that I am participating in the NWAC World Anesthesia Congress in Rome in April next year as an Associate Faculty member. The invitation and recognition that is being extended to me is an overwhelming feeling. I will be sharing some of my experience in the field of regional anesthesia globally but most importantly, being able to listen to and learn new techniques from well-known regional anesthesiologists from all over the world will enable me share this knowledge with my colleagues in the Philippines. This opportunity will surely help in improving the quality of anesthetic care in my country."



Dr. Cano teaching at the Wet Oimc at the State Hospital.

Plans for the Future

There are about 2000 board certified anesthesiologists in the Philippines and by her estimate; Dr. Cano said that, "only a handful of them are knowledgeable about nerve stimulators and ultrasound-guided regional blocks." Although many practitioners are very much interested in learning the techniques of regional anesthesia, there are several factors that hinder practice. She stated, "First, nerve stimulators and, more so, ultrasound is expensive and hospitals do not buy them. Second, state hospitals in the country depend on government funding or donations and the acquisition of regional anesthesia equipment is not the top among their priorities. Third, some anesthesiologists, and a lot of orthopedic surgeons, still do not fully understand and appreciate the benefits of regional anesthesia. Fourth, anesthesiologists need more workshops and exposure to gain skills in performing blocks."

As one of the front runners of regional anesthesiology in the Philippines, Dr. Cano works to address these issues by organizing a yearly workshop, which has taken place since 2008. In 2010, there was a workshop held in Manila and to reach out to the provinces, a workshop in the Southern Philippines.

Currently, there is increasing interest among anesthesiologists in the Philippines about the use of regional anesthesia, especially peripheral nerve blocks. But she finds that there is still reluctance on the part of

surgeons and patients to accept the benefits of the use of regional anesthesia. Dr. Cano stated that without a designated block room, "the delay that it can cause in the schedule remains the main stumbling block. Hopefully, when our regional block room is instituted, we will be able to perform regional blocks in less time and it will become more acceptable to the surgeons."

Dr. Cane's plans for the future include securing more funding and donations to set up a designated block room. The room would be used as a training ground for the residents but "more importantly, it will serve as a venue to become the regional block center of the Philippines." She envisions establishing preceptorships and observer opportunities for anesthesiologists interested in learning the science and techniques of regional anesthesia, "especially those who serve far out in the rural areas of the Philippines." It is her hope that "through my participation in the NWAC World Congress in Rome (see www.worldanesthesia.com), I will spark the interest of our foreign colleagues who would be willing to somehow contribute to make this dream a reality."

