

The Study of New Design of the Residency Rotation Can Increase the Exposure and Success Rate of Peripheral Nerve Block.

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Background: Peripheral nerve blocks (PNB) are one of the anesthesia and analgesia techniques that provide stable hemodynamic, prolong analgesia and avoid airway instrumentation. Proper training of peripheral nerve block skills is required for our anesthesia residency-training curriculum. There are varieties of teaching model for increasing an exposure and skill in the peripheral nerve block. Our model lasts 2 weeks at a time for the second and third year residency training. We would like to evaluate our first year of new teaching model.

Methods: The new model has been employed since the year 2013. Five residents of the second and seven residents of the third year in our anesthesia residency training program were enrolled all. Peripheral nerve block rotation was arranged 2 weeks at a time in the second and the third year, which was twice for each resident. The education was consisted of basic anatomy, ultrasound guidance, workshop, multimedia, journal and review PNB technique. PNBs were performed in

postoperative care unit under the supervision of staff anesthesiologists. All PNBs were done under nerve stimulator and ultrasound guidance. Cases that have been done were recorded in a logbook; number of patients, techniques, success rate and confidence were collected.

Results: The mean number of procedures was 12 PNBs. The success rate ranged between 87.5% - 100%. We found that nerve block for lower extremity procedures were performed more than upper extremity (55% versus 45%). Femoral and sciatic nerve block were the most number of lower extremity block (34.2%) and axillary nerve block was the most number of upper extremity block (33.3%). The confidence of resident in upper extremity (score 4 of 5) block was much more than lower extremity block (score 3 of 5).

<u>Conclusions:</u> The new model of PNB rotation can increase the exposure and success rate of peripheral nerve block.