

Polio Still Haunts Us With It's Sequelae

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Although World Health Organization has declared India polio-free since 2014, we still encounter patients with post-polio residual paralysis and/or deformity. When we encounter a patient with post-polio syndrome, we are usually in dilemma either to choose general anaesthesia or regional anaesthesia. Post-polio survivors are sensitive to virtually all the drugs. Therefore, there might be several considerations for general anaesthesia including possible altered sensitivity and unpredictable effect of induction drugs, maintenance agents, muscle relaxants, opioids and inhaled anaesthetics, difficult weaning from mechanical ventilation [1]. For regional anaesthesia, there are concerns of exacerbating pre-existing neuromuscular disorder, difficulty in palpating landmark, difficulty in evaluating the extent and spread of block or predicting complications [2-4].

Since polio virus has been eradicated, not many studies have been done in this aspect. With this letter, we would like to highlight the safety of regional anaesthesia during caesarean section in patient with post-polio syndrome.

Our patient was a 24-year-old primigravida at 37-week of gestation, presented with decreased fetal movement for 2 days. On evaluation, patient had post-polio deformity (short right tibial tendon and left thoracolumbar scoliosis with motor power of 5/5 in all limbs). Patient was taken for emergency caesarean section. We chose regional anaesthesia for this patient because of its benefit to both mother and child [5]. Along with co-loading with crystalloids, 2ml of Bupivacaine Heavy was given in L3-L4 intervertebral space with 25 Gauge Quincke's needle in sitting position. After 3 minutes, when T4 sensory

blockade was achieved, the surgery was commenced. Intraoperative hypotension and tachycardia were managed with mephentermine (3mg bolus) and adequate fluid resuscitation. A live male baby of 1800 grams was delivered. By end of the surgery, after 55 minutes, sensory blockade had regressed to T8 level and motor blockade was 2 in Modified Bromage Scale. Postoperative period was uneventful. Motor and sensory blockade completely resolved by 120 minutes and 150 minutes respectively. There was no further worsening of preoperatively present neurologic deficit.

Unlike the popular belief of "rule of 2", which is – "Polio survivors require 2 times

as long to recover from the effects of any anesthetics and

usual dose of anesthetic must be divided by two" (2), we managed to safely administer spinal anaesthesia (normal dose) in patient with post-polio syndrome without worsening of preoperatively present neurologic deficit. Ultimately, the choice of general or regional anaesthesia should be made on individual basis weighing risk versus benefit, however, regional anaesthesia should not be considered as absolute contraindication in these patient population.

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