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Our spinal anesthesia experience in a patient with osteogenesis imperfecta

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Aim: Osteogenesis imperfecta (OI), requires careful anesthesia management because it is not only a rare disease but also has risks such as difficult airway and malignant hyperthermia. In this report, a case of OI in whom surgical intervention is planned for left inguinal hernia is presented.

Case: In a 2 month old male patient at the weight of 3.2 kg diagnosed with osteogenesis imperfecta, inguinal hernia operation was planned. Routine monitoring was carried out. Spinal anesthesia administration was decided upon, taking short duration of operation, the probability of difficult intubation and the risk of mandibular bone fracture associated with intubation into account. Considering the risk of malignant hyperthermia, 2.5mg/kg propofol was administered without sevoflurane induction and mask ventilation was carried out. The patient was positioned carefully. 0.5mg/kg Bupivacain was administered intrathecally at the level of L4-L5. Operation lasted for 45 minutes, and hemodynamically its course was stable. Patients were followed in recovery unit and was sent to clinic after motor block was discontinued.

Discussion: Osteogenesis imperfecta (OI) is a rare autosomal recessive or dominant connective tissue disorder characterized by abnormal type I collagen production. In patients with OI, regional anesthesia is chosen rather than general anesthesia due to factors such as difficulty in ventilation and intubation, teeth and mandibular fractures, the risk of cervical trauma, difficulty in positioning the patient, the risk of malignant or non-malignant hyperthermia, and respiratory failure associated with kyphoscoliosis. The problems in regional anesthesia administration are anatomic abnormalities in these patients and impairments in bleeding diathesis. In our patient, bleeding profile and platelet values were normal. Anatomic impairment was not severe enough to prevent spinal anesthesia probably due to young age of the patient and at second trial, intrathecal space was entered.

Conclusion: Patients with OI are challenging cases for anesthesiologists as they have complications that may influence the selection of both regional and general anesthesia. Since the complications of general anesthesia are more fatal, and considering the effect on post-operative pain, it is our opinion that regional anesthesia technique should be the first choice.

Biography

Ozkan Onal has completed his medical education at Gazi University Medical Faculty and he was specialized in anesthesiology in Hacettepe University Medical Faculty. He has more than 15 publications in reputed journals in the field of anesthesia.

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