Huge vulval elephantiasis: Anesthetic management for caesarean delivery

Sir,

Elephantiasis is caused by obstruction of lymphatic system and has varied etiology as filariasis,[1] complication of tubercular lymphadenitis[2] and idiopathic.[3] It results in accumulation of lymph in the affected area leading to massive swelling and gross enlargement of the limbs and rarely external genitals called esthiomene.[4]

We report a rare case of huge vulval elephantiasis with the swelling hanging up to mid thigh in a 28-year-old, 60 kg primigravida parturient, who presented for elective caesarean section at 37 weeks' of gestation. She first noticed the right labial swelling at 8 weeks' of pregnancy, which

Figure 1: Contains reply template

enlarged quickly to reach this huge dimension by 28 weeks' of pregnancy. Preanesthetic examination was unremarkable. All the routine investigations including hemoglobin, total and differential counts, blood sugar, urea, serum creatinine, montoux test, urine examination, chest X-ray, ultrasound of abdomen and pelvis were normal. Examination of vulva revealed a non tender, irreducible mass ($25 \times 20 \times 15$ cm) with hardening and thickening of the skin with extensive rugosities, arising mainly from right labia majora and not involving limbs [Figure 1].

She had difficulty in walking to the extent that she could walk slowly with one hand supporting the swelling, with her legs apart. Examination of vagina and cervix did not reveal any abnormality. There was no regional lymphadenopathy, varicosity or signs of deep vein thrombosis. A clinical diagnosis of elephantiasis vulva was made. During elective caesarean section, positioning for neuraxial anesthesia was difficult as a left lateral knee chest position could not be given, so, the patient was placed in a sitting position with legs wide apart to accommodate the huge swelling on the operating table. She could not flex her spine as the vulval swelling interfered with the gravid uterus. Successful block could only be achieved after two unsuccessful attempts by a senior anesthesiologist. Subarachnoid block was given in L4-L5 interspace using 25-G spinal needle with 10 mg; 0.5% bupivacaine (heavy). A block height of T_5 was achieved and a live, 2.5 kg male child, was delivered. Surgery was uneventful. Seven days later, she was taken for local excision of swelling under spinal anesthesia using 15 mg; 0.5% bupivacaine (heavy). At this time, a single attempt at neuraxial block was successful by the same anesthesiologist as the patient could now easily flex her spine. Her postoperative course was uneventful.

Histopathological picture showed nonspecific, chronic, granulomatous inflammation with dermal edema, fibroplasia, dilated lymphatics, uniformly distributed stromal cells and varying degree of papillated epidermal hyperplasia, inflammatory infiltrates and hyperkeratosis. The serological tests to agents that usually cause vulval infections with elephantiasis were negative and microbiological analysis of vaginal secretions revealed mixed bacterial flora and the case was diagnosed as elephantiasis of the vulva of an unclear etiology.

Lu *et al.*,[5] in a case control study of elephantiasis, concluded that a combination of lymph stasis promoting factors (trauma, obesity, infection and inflammatory disorders) produces localized elephantiasis. In the case reported, pregnancy with increased intra-abdominal pressure may have led to development of elephantiasis. This case highlights the anesthetic implications for neuraxial anesthesia in a patient with huge vulval elephantiasis, posted for elective caesarean section.

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