
Unilateral complete ptosis after scalp block: A rare complication of common procedure

Sir,

Surgical stress response as a result of untreated pain perioperatively may adversely affect various physiological functions and even may lead to increased perioperative morbidity and mortality.^[1] The scalp nerve block is commonly performed during intracranial surgeries, during excision of various lesions of scalps and to treat chronic headaches.^[2] Scalp block minimises noxious stimuli to the rich sensory nerve supply of the scalp which may lead to stress response reduction and haemodynamic stability during surgeries involving the scalp.^[2] Excision of scalp mass, particularly involving territories of the occipital nerve, may lead to post-surgical occipital neuralgia, which may lead to debilitating chronic headache in future.^[3] Perioperative scalp block may thus not only provide relief for acute pain but also potentially decrease persistent post-operative pain.^[4] Here, we report complete unilateral ptosis as a complication related to scalp block in a 15-year-old

girl who underwent excision of a large dermatofibroma of the scalp.

A 15-year-old, 50-kg girl presented with dermatofibroma (5 cm × 3 cm) of the scalp over the occipito-parietal (central with right-side extension) region posted for wide local excision and rotation flap cover. Preanaesthetic evaluation was within normal limits. In operating room, standard monitors were attached and the patient was induced with general anaesthesia using standard protocol. Following induction, bilateral scalp block was given to supplement intraoperative analgesia and also to provide residual post-operative analgesia using bupivacaine 0.25% with 21G needle, and a volume of 2 ml 0.25% bupivacaine was given at supratrochlear, supraorbital, zygomaticotemporal, auriculotemporal, lesser occipital and greater occipital nerves of both sides. Intraoperative haemodynamics were stable, and intraoperative muscle relaxant and analgesic requirement was minimal. The surgery continued for approximately ~4 h. At the end of surgery, residual muscle paralysis was reversed and the patient was extubated. Post-operative vitals were normal. Immediately following extubation, complete ptosis of the right eye was observed [Figure 1], however, the remaining neurological assessment was normal. The



Figure 1: Right eye ptosis just after surgery



Figure 2: Complete resolution of ptosis after 10 h

patient was shifted to post-anaesthesia recovery room for observation. Approximately 10 h later, the ptosis was completely resolved [Figure 2].

Local anaesthetic toxicity, severe bradycardia, hypertension and inadvertent subarachnoid injection have been reported as complications of scalp block.^[1] Transient facial nerve palsy and trigeminocardiac reflex have also been reported with scalp block.^[5] Unilateral complete ptosis due to scalp block is a rare complication associated with scalp block. While transient facial nerve palsy could have been considered as the cause for ptosis in our patient, other features of facial nerve palsy such as deviation of the angle of the mouth or drooling of saliva were not observed. This prompted a search for other probable causes. On further examination, a haematoma was observed over the right upper eyelid leading us to suspect that it could be causing mechanical ptosis. Treatment for the same was started with cold compresses, anti-inflammatory drugs and keeping the head propped up. We observed that the ptosis resolved with the resolution of the haematoma, which confirmed our suspicion. The haematoma could have developed because of rapid infiltration of a large volume of local anaesthetic around the supratrochlear and supraorbital nerves. A volume of 0.5–1 ml of local anaesthetic and a smaller size needle

of 25G are recommended particularly to infiltrate the supratrochlear and supraorbital nerves to prevent such complications.^[6]

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