Letters to Editor

**Transient loss of voice during labour analgesia**

Sir,

A 30-year-old full term American Society of Anesthesiologists 1 primigravida patient was administered labour analgesia (LA) on demand at 4–5 cm cervical dilation employing combined spinal epidural (CSE) technique. In sitting position, assuring asepsis, 18 g epidural catheter was sited in L2–3 space threaded up to 10 cm, checked and fixed. After that, 1cc of 0.125% preservative free isobaric bupivacaine (1cc of 0.25% preservative free bupivacaine double diluted with sterile normal saline) and 10 μg fentanyl was injected intrathecally via 26 g Quincke needle at L3–4 space. Maternal and foetal vital parameters remained stable.

She had satisfactory pain relief in 10 min and was chatting comfortably when suddenly after 12 min, we noticed loss of voice (she was unable to talk). Other than that there was no neurodeficit or dyspnoea. Spinal level was limited to T6. She was fully awake, oriented and continued communication with us by writing. All maternal and foetal vital parameters remained normal. She was pain free and her labour progressed normally. She was worried but not hysterical. No further abnormality was revealed in neurology consultation. As no further deterioration was noted, we counselled the patient and relatives regarding this event being a rare but reversible drug side effect and reassured them about both maternal and foetal well-being.

Epidural bolus was held off, which otherwise would be given at 30 min after spinal injection. By 45 min of the event the phonation started returning and by 1 h she was able to speak normally. Simultaneously cervix was found to be fully dilated and she went on to have a normal vaginal delivery. Ten millilitre 0.25% bupivacaine was given epidurally for episiotomy suturing. The epidural catheter was removed after suturing. The post-operative recovery, hospital stay and follow up for 3 months was uneventful.

Cerebral complications of preeclampsia, thrombo-embolic phenomena, absence seizure or high spinal can mimic symptoms of transient ischaemic attack in a parturient. However, our patient did not fit into any of these categories. Kuczkowski and Goldsworthy[1] reported a case of a previously healthy parturient who received 10 μg of fentanyl combined with 2.5 mg of bupivacaine intrathecally as a part of CSE technique for LA and At 4 min after intrathecal injection she suddenly developed transient aphonia and aphagia. The pinprick sensory level of analgesia was found to be at T3 and her symptoms resolved in 20 min. Gupta et al[2] reported aphonia and aphagia in a male patient posted for lower limb debridement at 3 min after receiving 12.5 mg heavy bupivacaine with 25 μg fentanyl intrathecally which recovered spontaneously in 10–15 min. In both cases the authors believe extensive cephalad spread of fentanyl through the Cerebrospinal fluid (CSF) as the cause for neurological symptoms. There has been a study which noted rapid cephalad spread of fentanyl in the cervical CSF after lumbar administration.[3] Sudden onset, life-threatening respiratory depression have been reported following administration of intrathecal fentanyl
for labour analgesia which suggest that lipophilic opioids may move rapidly from lumbar cistern to brainstem level via CSE.\[4\] There may be more rapid rise in CSF concentrations of drug due to pregnancy related changes. Rapid clearance of fentanyl from the CSF might explain the transient nature of symptoms. Some cases have been reported where similar side effects were noted to be reversed using opioid antagonists naloxone and nalbuphine\[5\] supporting the cause to be the opioid. Many similar unreported incidences may have been attributed to over anxious and hysterical nature of patients.

CSE using fentanyl is one of the established techniques for labour analgesia with minimal side effects. It is necessary to be aware of this rare side effect and maintain composure, provide reassurance to patient and reverse drug effect if needed.

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**Conflicts of interest**
There are no conflicts of interest.

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