



LETTER TO THE EDITOR

Intravenous fentanyl as the treatment for intraoperative hiccups: A case report

intraoperatif hıçkırığın tedavisi için intravenöz fentanil: Bir olgu raporu

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To the Editor,

A hiccup is a sudden, involuntary spasmodic contraction of the diaphragm and external intercostal muscles that results in inspiration, which abruptly ends with the closure of the glottis.^[1, 2] Herein, we report an interesting case of a patient who developed hiccups following spinal anesthesia, which was subsequently treated with intravenous fentanyl.

A 34-year-old male was posted for arthroscopic anterior cruciate ligament reconstruction. History, physical examination, and blood investigations were unremarkable. In the operative room, standard monitors (ECG, NIBP, and SpO₂) were applied and intravenous access with 18G IV cannula was secured. Subarchnoid block was administered in the L4–L5 interspace with 3 ml of Inj. Levobupivacaine 0.5%. Level of block was checked, and sedation was achieved with 2 mg of Inj. Midazolam. After 2 minutes, patient developed hiccups. Reassurance was unsuccessful; subsequently, Inj. Midazolam 1 mg was administered. There was no change in the frequency of hiccups. After 5 minutes, patient complained of pain in the subscapular area. We administered 30 mcg of intravenous fentanyl. Frequency of hiccups reduced and completely stopped within 5 minutes. The remaining perioperative period was uneventful. There was no subsequent recurrence of hiccups.

Clinically, most hiccup episodes begin with an acute onset, are benign, and are self-limited, typically ceasing within minutes.^[3] However, the sudden onset of hiccups may become a safety hazard when patients are sedated. Acute hiccups may disturb the surgical field, interfere with lung ventilation, or hamper di-

agnostic procedure.^[4] Interestingly, drug-induced hiccups are reported more common in men than in women,^[5] similar to our reported case.

Various drugs such as ketamine 25 mg IV, ephedrine 5 mg IV, atropine 0.5 mg IV and dexmedetomidine 50 g IV over 10 min have been used to manage intraoperative hiccups.^[4, 7] Although benzodiazepines are well known precipitant of hiccups, intravenous midazolam has been successfully utilized in patient with terminal hiccups.^[6] However, in our case, further dose of midazolam did not terminate hiccups. Although opioids are also described as a cause of hiccups, in our case, a small dose of intravenous fentanyl proved to be beneficial in terminating hiccups; as per our knowledge, this has not been previously reported.

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