

[NM-171] The complicated uncomplicated epidural placed under general anesthesia. A complete Spinal in the post anesthesia recovery unit.

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A Total spinal from an intrathecal epidural catheter is a rare complication. In our case a 5 year old underwent epidural placement performed under general endotracheal anesthesia with a loss of resistance technique. There was negative aspiration for blood and cerebral spinal fluid on placement. The blood pressure decreased to a systolic in the 50's after initial dosing while the heart rate remained stable. A fluid bolus was given and the inhaled anesthetics were decreased with the blood pressure normalized to a systolic in the 90's. In the PACU the patient complained of pain. A dose of Ropivacaine was given through the indwelling catheter. Within 7 minutes the patient was unresponsive, apneic and required bag mask ventilation. No heart rate changes were noted. After 20 minutes spontaneous respirations returned. There was a regression of analgesic levels and the patient complained of pain after 30 minutes. At this time the epidural catheter aspiration remained negative for CSF or blood. A Ropivacaine drip was started and produced an analgesic level of c6 within 15 minutes. The drip was immediately discontinued and the "epidural" catheter was removed. As the catheter was pulled out 1 cm 3 ml of easy flowing clear fluid was obtained. The patient regained full motor and sensory function prior to leaving the recovery room.

This case demonstrates the lack of CSF return from the catheter during placement and during use of an intrathecal catheter. This case illustrates the importance of identifying intrathecal placement of "uncomplicated" epidural catheters placed under general anesthesia. Recent cases in the literature have shown that there can be devastating permanent neurologic complications from epidural placement under general anesthesia.(1) The rate of complications of epidural placement are unknown in children, however the epidemiologic data from the National Pediatric Epidural Audit and the Pediatric Regional Anesthesia Network have been useful in providing insight into the rate of complications. This case was reported to the PRAN database. An editorial of pediatric regional anesthesia published by Berde and Greco touched on several points in our case.(2) Provisional recommendations for Epidural Anesthesia in Anesthetized children included the statement "Severe hypotension following test dose can be assumed to be due to subarachnoid placement unless demonstrated otherwise."(2) Fortunately the hypotension was treated and no long term, neurologic sequelae were present in this case. The recognition of an intrathecal catheter would have led to closer management in the PACU and would have prevented the life threatening apnea. If the patient had been dosed in a less acute environment such as the surgical hospital floor where a delay may have occurred in the ability to ventilate the patient the outcome may not have been favorable.

1)Meyer M, Krane E, Goldshneider K, Klein N. Neurological complications associated with epidural analgesia in children: a report of 4 cases of ambiguous etiologies. *Anesth Analg* 2012; 115: 1365-1370

2)Berde C, Greco C. Pediatric regional anesthesia: Drawing inferences on safety from prospective registries and case reports. *Anesth Analg* 2012; 115: 1259-1262

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