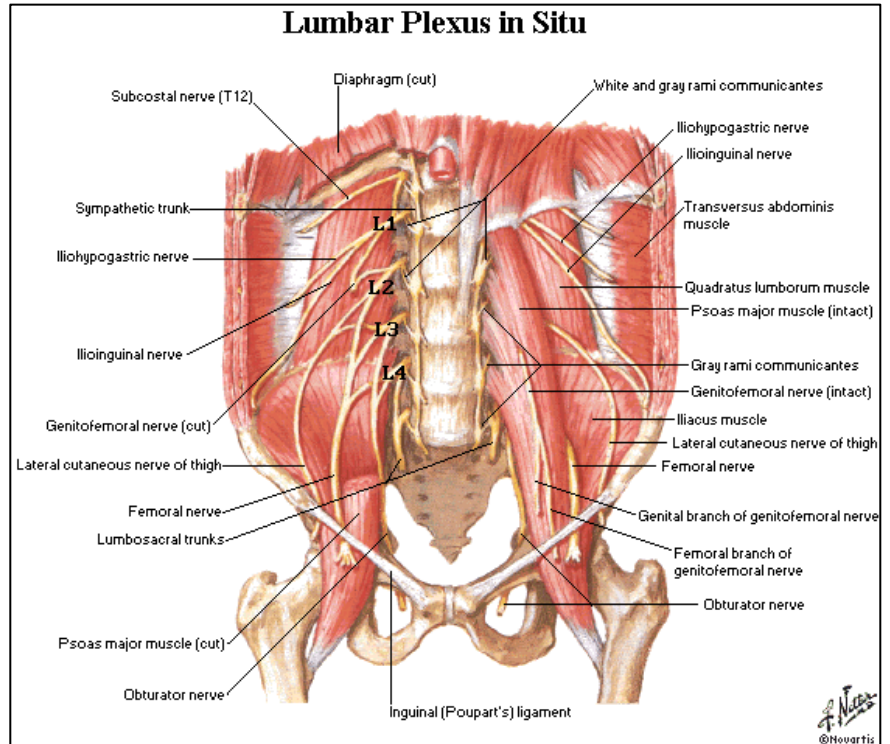# Post-Partum Nerve Injury

Anesthetic Pearls: Evaluation and Management of Post-Partum Nerve Injury

Post-partum nerve injuries can be broadly categorized and characterized by back pain, injury to mother during delivery, and injury from analgesia / anesthesia management techniques.

Back pain is present in approximately 40% of all deliveries, no matter how the baby is delivered and no matter what form of analgesia is used. No study has shown an association between regional epidural anesthesia and back pain. A recent study showed that back pain was present in 48% of patients in both the regional epidural group and medication only group at both the 1 and 6 month intervals. Interestingly, when pre-delivery back pain was controlled for, rates of (new) post-delivery back pain were similar at 28% in both groups.

Lumbar Plexus in Situ

Injury to the mother by the baby is caused by direct compression of the lumbosacral plexus from the fetal head. A mid-forceps rotation is also implicated. The L-5 nerve is most often affected since this is the cord that runs over the pelvic brim. Recovery most often occurs within 6 months.

Injury caused by anesthesia / analgesia management and techniques can be caused by medication toxicology, needle trauma, epidural hematoma, and positioning. The local anesthetic 2-3 – Chlorprocaine historically had metabisulfite as an additive and when given in the intrathecal space was implicated to cause persistent neurologic deficits. Currently, 2-3 – Chlorprocaine has EDTA as a preservative and no longer carries these neurologic sequelae. Most cases of nerve injury after spinal / epidural anesthesia were associated with paresthesia with needle placement or injection. Epidural hematoma causing lower extremity weakness must be diagnosed within 6 hours and treatment is emergent decompressive laminectomy. Persistent numbness or weakness after spinal / epidural must be taken seriously. Another common injury is compression of the peroneal nerve as it curves around the fibular head caused by lithotomy stirrups.