The use of LMWH with spinal and epidural anesthesia is safe as long as published guidelines and recommendations from experienced clinical authorities are observed.

Single-shot spinal anesthesia with preservative-free morphine and epinephrine provides good anesthesia and postoperative analgesia while minimizing risk of epidural hematoma formation. Perhaps most important, local anesthetics in epidural injections potentially can interfere with the neurologic examination by causing some mild numbness or weakness. The ASRA consensus conference addressed this by encouraging anesthesiologists to minimize the concentration of local anesthetic in the anesthetic solution.

Catheter removal is another important consideration in epidural anesthesia. Catheter removal has been documented to be a traumatic event. According to the ASRA guidelines, one must wait at least 10 to 12 hours after the last dose of LMWH to withdraw the catheter and then wait another 2 hours before giving the next LMWH dose.

In general, either the catheter should be removed at the end of the surgery and LMWH prophylaxis should begin 12 to 24 hours later, or the catheter should be removed early in the morning (e.g., 7 AM) on the day after surgery and LMWH therapy should begin 2 hours later. When LMWH therapy is begun with the catheter still in place, it is advisable to skip one dose of LMWH before removing the catheter. It is not advisable to have an epidural catheter in place at treatment doses (i.e., 1mg/kg bid of enoxaparin).

If a traumatic epidural or spinal injection occurs, special precautions must be observed when administering LMWH. This event was disproportionately represented in the case reports considered by the ASRA consensus conference. When a regional technique is attempted but abandoned for general anesthesia, patients probably sustain excessive trauma to the epidural space. In this situation, it is better to wait at least 24 hours before initiating LMWH therapy.

References:
