The Importance of Subarachnoid Catheter in Low Dose Spinal Anesthesia Technique

Opinion

Volume 4 Issue 5 - 2016

Ahmad Z Al-Shraideh*

Consultant Anesthetist, Prince Hashim Bin Abdullah II Military Hospital, Jordan

***Corresponding author:** Ahmad Z.Al-Shraideh, Consultant Anesthetist, Prince Hashim Bin Abdullah II Military Hospital, Aqaba- Jordan, Tel: +962776861785, Email: alshraideh_ahmad@yahoo.com

Received: April 12, 2016 | **Published:** April 19, 2016

Opinion

I will start this letter with the following question: Is it important to use spinal (subarachnoid) catheter in low dose spinal anesthesia technique? The answer is of course yes, because of many reasons: The response to the local spinal anesthetic drug in general is variable as the response to the low dose of the drug, so the response is not the same for all patients and can be one of the following:

A. Optimal: which means good and satisfactory response to accomplish the surgical procedure without unwanted side effects of classical spinal anesthesia such as hypotension,bradycardia, respiratory depression, nausea, vomiting…etc.

B. Not Optimal: which means the dose given might be:

   a) Good for surgical anesthesia, but associated with well-known side effects of spinal anesthesia.

   b) Partially effective, due to individual sensitivity or because of bad drug quality.

   c) Not effective.

   d) Good for surgical anesthesia and without side effects but not sufficient to accomplish the surgery because the time needed to accomplish the surgery is longer than the duration of action of the anesthetic drug.

The above mentioned variations represent major disadvantages of low dose spinal anesthesia as a single shot as shown in our study "Low Dose Spinal Anesthesia in Elderly & Critically Ill Patients" published on November 04, 2015 in the Journal of Anesthesia & Critical Care: Volume 3 Issue 2 - 2015. & also renders the anesthetist under the stress of choosing the induction dose and the time needed to accomplish the surgery, which might be longer than expected or when there is a need to supplement the anesthesia for other reasons.

So the use of spinal subarachnoid catheter is essential, especially in cases where there is no place to guess or fail, as it makes the process of anesthesia approach the ideality, which means that the anesthetist can give the right effective anesthesia to the right patient without undesirable side effects. To avoid any complication in regards of the vital signs, a dose of 0.5ml of plain bupivacaine can be sufficient for surgical anesthesia in many cases even for major surgery such as ORF for # neck of femor, and a dose of 0.25ml of the same local anesthetic can be used as a maintenance to accomplish the surgical procedure, although a significant drop of blood pressure can be seen with this tiny dose of spinal anesthetic. The correction of this blood pressure drop is obviously easy, and in a short time with simple measurements.

Furthermore, by titrating the right dose of local anesthetic to be just for surgical anesthesia, the muscle power is not so profound, so the recovery period for the patient is shorter, without making the patient experience the bad sensation of profound muscle relaxation, which maybe prolonged as in classical spinal anesthesia, also the time of the patient's stay in the recovery is shorter ,especially because the vital signs of the patient remain unchanged during surgery and will still be in the recovery room.

Spinal subarachnoid catheter can also be a very useful mean for post-operative pain management. A 20 gage catheter was used in this method and introduced through Tuohy needle of 18 gage. Although the gage of the catheter and the Tuohy needle appears to be traumatic to the dura, but this is what I had, as another fine more suitable kit is not available in my country, and I had to choose between cancelling the operation and anesthetizing patients with this traumatic kit.

The catheter was removed 24 hrs after the operation, fortunately, despite using this what appears to be a traumatic kit, the potential post-dural tab headache was not seen in any of the 25 elderly patients. It's worth mentioning that post-dural tab headache is a treatable complication.

Recently, I obtained special spinal catheter of 22 gage with Tuohy needle 19. I have anesthetized 2 cases using this kit without complications.

Finally, I hope the above mentioned facts regarding the wonderful results using spinal subarachnoid catheter will represent a step forward in spinal anesthesia.