

# Case Report on Anesthetic Management of Patient with Giant Fibroid Posted for TAH with Thrombocytopenia in Secondary Health Care Center

Saurabh Sharma

Department of Anesthesiology and Critical care, Civil Hospital Palampur, Himachal Pradesh, India

Correspondence Address: OT Complex, ground floor, Civil Hospital Palampur, Distt Kangra, HP 176061, India

Email: [dr.saurabh.sh303\[at\]gmail.com](mailto:dr.saurabh.sh303[at]gmail.com)

**Abstract:** Giant uterine fibroids are very rare in current clinical practice, owing to ease of early diagnosis and common symptoms of presentation. These usually present with symptoms of bleeding per vaginum and swelling of abdomen. Bleeding associated with this disease if accompanied with anemia and thrombocytopenia which is defined as platelet count  $<1,00,000/\text{mm}^3$  in any patient, poses a unique challenge to the anesthetist because of various complications associated with it. We report a case of 35 years old female, posted for total abdominal hysterectomy with thrombocytopenia in a secondary health care institute. The anesthetic management of this case is presented here.

**Keywords:** Giant uterine fibroid, anemia, thrombocytopenia, spinal anesthesia, hysterectomy

## 1. Introduction

Giant fibroid as the name suggests are bulky enlargement of uterus which may be due to sub mucosal, sub serosal enlargement of uterine tissue. They usually present with bleeding and pain. Initially they are managed by medications but failed cases need total abdominal hysterectomy, which is usually carried out either under spinal or epidural anesthesia. But in cases complicated with thrombocytopenia, administering neuraxial anesthesia becomes challenging. Careful consideration of all the benefits and limitations of each anesthetic technique must be considered in such patients. For the patient with thrombocytopenia, the risk of general anesthesia must be balanced with the risk of neuraxial hematoma, a risk enhanced by decreased platelet number, function, or both. [1]

## 2. Case Report

A 35 yr old female who was 156 cm tall and weighed 63 kg with BMI of 25.9 presented with a hard mass on Per Abdomen examination up to the size of 28 wks. She was diagnosed with a giant uterine fibroid on ultrasonography measuring 9.6cm x14.6cm x14.7cm in size. Airway examination revealed a Mallampatti Grade 2, no loose or artificial teeth, mouth opening  $>3$  fingers adequate temporomandibular joint movement and full range of neck movements. All routine investigations were carried out which revealed that her platelet count was  $78000/\text{mm}^3$ . Other blood investigations, ECG and chest x ray were normal. BT and CT were normal range. There was no history of any medication, easy bruisability, bleeding from gums and any other disease or deformity. Her baseline vitals show pulse rate 90/min, regular, blood pressure 118/78mm of Hg and  $\text{SpO}_2$  97% on room air. On auscultation bilateral air entry vesicular and equal, CVS and other system examination was normal. All essential monitoring like continuous electrocardiogram, non invasive BP, pulse oximetry was

established. We planned to proceed with spinal anesthesia (sub arachnoid block). IV line was established and fluids were administered, patient was made to sit and all aseptic precautions were taken. Part was prepared with 7.5% povidine iodine and ethyl alcohol and after identification of appropriate lumbar space, lumbar puncture was done at  $L_3$   $L_4$  level using 26 G Quinke's needle. CSF flow was confirmed and 2.8 ml (14mg) of .5% Bupivacaine (H) and  $25_{\mu\text{g}}$  of fentanyl given. Patient was made supine and surgery was allowed to proceed after level was confirmed upto T4 for sensory system. Surgery lasted for 1 hr and 45 minutes. Uterus was excised and weighed 2.98 kgs. Blood loss was 450 ml. Patient was closely followed up for any signs of spinal hematoma or weakness for upto 48 hrs in post operative ward. Postoperative period was uneventful.



Figure 1: Giant Fibroid post excision

## 3. Discussion

Most important aspect of any surgery is to provide maximum benefits, minimize risks and side effects and ensure safety of the patients. Low platelet count in any patient posted for surgery not only poses a challenge to the surgeon but also complicates the anesthetic techniques. The

major concern of the anesthesiologist in placing neuraxial anesthesia in a patient with thrombocytopenia is an epidural or spinal hematoma. The risk of epidural hematoma must be weighed against the risk of general anesthesia.[1] Spinal anesthesia has proven its efficacy and safety in terms of reduced incidence of hemorrhage during surgery owing to its effect on sympathetic nervous system, decreasing its tone leading to hypotension. Hypotension after the onset of SA is thought to be caused by either a decrease in systemic vascular resistance (SVR) or cardiac output (CO) or both. [2] Spinal anesthesia also becomes the anesthetic technique of choice due to reduced incidence of post operative nausea and vomiting, decreased incidence of post operative cognitive dysfunctions which are usually seen with general anesthesia. PONV, a complex multi factorial problem, is more frequent after general anesthesia compared with spinal anesthesia.[3] Spinal anesthesia is also preferred due to reduction in these side effects, and reduced cost and need for supplementary analgesia for breakthrough pain in the first 6 hrs. Spinal anesthesia is 9.93% less expensive than general anesthesia, indicating substantial cost-saving potential. With no sacrifice of patient outcomes and the added benefit of less pain and recovery time, Spinal anesthesia represents a more cost-effective alternative to general anesthesia.[4] Thrombocytopenia as a disease caused by decreased platelet counts  $<100,000/\text{mm}^3$  usually presents with easy bruisability, bleeding of gums or excessive bleeding after any injury or menorrhagia. Various guidelines suggest platelet count to be between  $80000/\text{mm}^3$  or above for safe placement of spinal or epidural. The Statement begins with a summary of the existing literature and an observation that the risk of spinal-epidural hematoma in the nonobstetric population increases when platelet counts fall below approximately  $75,000 \times 10^6/\text{L}$ , and to a greater degree with platelet counts below  $50,000 \times 10^6/\text{L}$ . [5] Based largely on this evidence, the task force recommends proceeding with neuraxial anesthesia in most cases if the platelet count is  $>70,000 \times 10^6/\text{L}$  and there is no evidence of clinical bleeding.[6]

#### 4. Conclusion

Though there are various different reports and guidelines regarding the safe lower limit of platelet count for placing spinal- epidural in patients with thrombocytopenia, but in our case we found out that a safe lower count of  $75000/\text{mm}^3$  is acceptable in secondary health care services. Also when compared with cost effectiveness and side effects like PONV and delirium associated with general anesthesia spinal anesthesia stands out as our anesthesia of choice.

#### Declaration of consent

Author certifies that all appropriate consents were taken. The patient understands that the name and identity will not be published and all efforts to conceal the identity will be taken but anonymity cannot be guaranteed.

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#### Conflict of interest

There are no conflicts of interest.

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