Case Report

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Lost Needle during Episiotomy Repair: Case Report

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Abstract

Episiotomy during vaginal delivery is a very common and simple surgical procedure; however, this simple procedure can have some uncommon but challenging complications. One such complication is a broken or missing needle during an episiotomy or perineal tear repair. Removal of the needle could be an ordeal especially when the patient is heavily bleeding. Lost/retained foreign surgical object incidents have significant clinical, financial and medico-legal consequences. If it is difficult to find the lost needle immediately, a minimally invasive procedure is desired for a later retrieval. In our case, fluoroscopic guided needle retrieval converted a complicated case into a simple day surgery.

We are presenting a case of Forceps assisted vaginal delivery complicated by traumatic postpartum hemorrhage that became more challenging when the needle got lost during the repair of the actively bleeding episiotomy. To continue the search for the lost needle could have put the patient's life at risk, whereas leaving the needle behind unaddressed was not ethically the right option. It was decided to secure the hemostasis and leave the needle behind to be removed later. An Interventional Radiologist was involved in the multidisciplinary team and the needle was retrieved successfully under Fluoroscopy guidance and the patient was discharged on the same day. Interventional Radiology is emerging as a very helpful modality to help a surgeon's decision making in situations where immediate removal of the needle can have devastating effects on the patient's health and leaving the needle behind can lead to medico-legal problems. If a facility does not have Interventional Radiology services, it is prudent to stabilize and timely transfer the patient to a hospital equipped with such technologies for further management.

Keywords: Case Report; Missing needle during episiotomy repair; Fishing for a needle; Complications of lost needle after suture of vaginal tear; Retained surgical needle in the perineum

Introduction

Episiotomy during vaginal delivery is a very common and simple surgical procedure; however, this simple procedure can have some uncommon but challenging complications [1]. One such complication is broken or missing needle during episiotomy or perineal tear repair. Removal of the needle could be an ordeal especially when patient is heavily bleeding. Not only excessive blood loss can lead to devastating consequences, leaving the foreign object behind has its own morbidity and medico-legal aspects [2]. Needle retrieval under fluoroscopy guidance can be a big help in such a dilemma reported below [3].

Case Report Narrative

A 33 years old Tunisian lady, primigravida, 38 weeks pregnant was admitted to our hospital on 11/1/2020 with the complaint of labor pain and spontaneous rupture of membranes.

The patient received epidural analgesia and had uneventful first stage of labor and was delivered by mid cavity forceps with episiotomy due to prolonged second stage. After the delivery of the baby and placenta, it was noted that the patient was profusely bleeding from the episiotomy site.

Uterus was well contracted. The suturing of the episiotomy started immediately. As the tissues were deep and bleeding was heavy, quick suturing was needed. During suturing, the thread snapped from the needle eye and needle got lost in the perineal tissues. The perineal area was explored but the needle could not be seen or felt. Estimated blood loss at that time was 1.2 liters

The patient was immediately shifted to the operation room for better exploration of the tissues. The needle was not found despite thorough exploration. Portable X-Rays were done, and the needle was seen in the right Ischiorectal fossa. As the Patient was actively bleeding and had further lost 1.3 liters of blood in the OR, the second opinion from the second consultant on call was taken and both consultants agreed to suture the episiotomy to stop the bleeding and needle will be retrieved later.

Episiotomy was stitched in layers and hemostasis was secured. The patient lost a total of 2.5 liters blood and HB

dropped from 11.4 to 7.9 and received 2 units of PRBCs in the OR.

The patient and family were debriefed about the incident and the plan. The patient was shifted to the recovery room on antibiotics and with a vaginal pack for 24 hours. The patient stayed stable during postoperative periods; the vaginal pack was removed after 24 hours. Pelvic USG showed no hematoma. She received 3 more units of PRBCs because of a low HB of 8.7.

MDT meeting was arranged on the same day involving Consultant Obstetrician, General surgery consultant, interventional radiologist consultant and anesthesia consultant. They all agreed that as the needle is not in close proximity of any vital structure or vessel and being curved in shape, chances of migration are also low, it's better to let the wound heal and edema and inflammation to resolve.

The urgent intervention will only be done in case of abscess formation or severe pain otherwise needle retrieval will be tried after 6 weeks. The patient and family were debriefed about the plan. The patient was discharged in stable condition with weekly follow up.

The patient stayed symptom-free for the next 6 weeks and was re-admitted on 16/2/2020 for foreign body retrieval. A CT pelvis with contrast was done to localize the needle. The needle was present approx. 1.5 cm-2 cm infer medial to the right pubic ramus. Team of Intervention Radiologist and Obstetricians agreed to try percutaneous image guided retrieval and if not successful, then open tissue exploration will be done. Consent was taken. The needle was removed successfully in its intact form under the US and fluoroscopic guidance. The patient tolerated the procedure well and was discharged in stable condition on the same day.Patient was very satisfied with the care provided and happy to be able to get back to her normal routine despite the complexity of her situation (Figure 1).

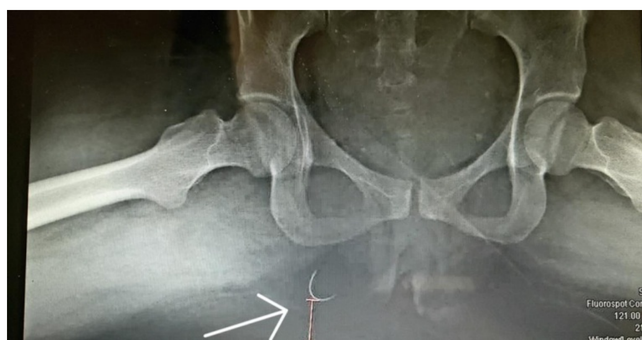

Figure 1: X-ray imaging showing missing needle.

Discussion

Although the incidence of a lost needle or broken needle during episiotomy repair has been reported at 0.17% [4], there is not much literature available for this topic [5]. A review of the few case reports about the above-said complication showed that management varied according to the patient's condition and available resources ranging from their immediate removal through a surgical incision to leaving the needle behind for safety reasons and retrieving it later. On one hand, finding a lost needle through tissue exploration in the deep perineal tissue especially when patient is actively bleeding can be a very stressful experience and has morbidity associated with long surgery time, blood loss, extended tissue exploration, prolonged hospital stays and slow recovery. On the other hand, leaving the needle behind can cause severe morbidity in the form of chronic pain, dyspareunia, infection, migration of needle to a vital organ or blood vessel, fistula formation and can also become a medico-legal issue. In this dilemma, involvement of interventional radiology can help us to avoid all these possible but undesirable outcomes by locating the needle with precision and removing it without lengthy and wide tissue exploration. [5]. The facilities not equipped with Interventional Radiology can transfer the patient after stabilizing to the hospitals offering image guided procedure rather than choosing extensive tissue exploration and prolong surgery.

Conclusion

Episiotomy could be a simple procedure but like all other surgical procedures, it is not completely risk-free and sometimes can have challenging complications. One of them is needle loss during episiotomy repair. The patient's nurses and doctors should not try to deny, conceal, or underscore that the incidence has occurred. If needle retrieval is difficult due to heavy bleeding or deeper perineal tissue, trial of percutaneous image-guided retrieval can reduce the morbidity associated with open tissue exploration, prolonged surgery time; long hospital stays and slows recovery. Although, it needs the expertise of an interventional radiologist, it saves the patient from lengthy distress as well as the health professionals from the heavy cost of litigation.

This report will support previous case reports surrounding this topic to further reinforce the options of image guided retrievals involving lost surgical needles and will widen the circle of available options for the situations mentioned above.

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Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review by the corresponding author of this case report.

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