East African Scholars Journal of Medicine and Surgery
Abbreviated Key Title: EAS J Med Surg
ISSN: 2663-1857 (Print) & ISSN: 2663-7332 (Online)
Published By East African Scholars Publisher, Kenya

Volume-3 | Issue-12 | Dec-2021 | DOI: 10.36349/easjms.2021.v03i12.003

OPEN ACCESS

Case Report

Retained Needle during Post Delivery Repairs of Episiotomy and Perineal tears: A Case Series

Stephen Swetala[1*], Happiness Mbena[2], Albert Kihunrwa[2], Yahya Magaso[2], Mathias Njau[2], Colman Mayomba[2], Patrick S. Ngoya[3], Geofrey Giiti[4]

[1]Department of Orthopedics and Trauma, Bugando Medical Centre, Mwanza, Tanzania
[2]Department of Obstetrics and Gynecology, Bugando Medical Centre, Mwanza, Tanzania
[3]Department of Radiology, Catholic University of Health and Allied Sciences
[4]Department of Surgery, Catholic University of Health and Allied Sciences

Article History
Received: 03.11.2021
Accepted: 07.12.2021
Published: 31.12.2021

Journal homepage:
https://www.easpublisher.com

Quick Response Code

Abstract: ***Introduction:*** Retained surgical suture needle during repairs of episiotomies or vagina tears is rare. Blind exploration can be demanding and is associated with massive dissection and hemorrhage. The aim is to present three cases encountered at Bugando Medical Centre, Mwanza Tanzania and their management. ***Case Presentation:*** Three peri-partum cases encountered with retained needles within the same week; one post-episiotomy and two post-perineal tears repair.The first two cases underwent blind exploration of the retained needle without success. Panel discussions by the attending Obstetricians and Trauma Surgeons came up with consensus of exploring the retained needle under x-ray fluoroscopic imaging. All the three cases underwent x-ray fluoroscopic imaging exploration with successful retained needles retrieved without significant dissection or hemorrhage. ***Conclusion:*** Image guidance using x-ray fluoroscopic imaging is time saving with a higher success rate and minimal complications than blind exploration. Early disclosure of a retained needle during the repair of an episiotomy or a perineal tear is very important in order to avoid retrieval complications and medico-legal implications.

Keywords: Retained needle, Episiotomy, Perineal tear, Birth Delivery, Fluoroscopy.

INTRODUCTION

Retained foreign bodies in soft tissue are reported in different parts of the body. Most of them are traumatic incidents involving the hand and foot. Decision to remove or ignore depends on the clinical symptoms, the benefits and risks of removal [1]. Post-delivery retained needles are rare and few case reports on them [2, 3]. Neglecting the retained needle can cause its migration to deeper, different and surrounding soft tissue structures and cause chronic pain in long run [2]. The aim of this case series is to demonstrate the management of three cases attended at Bugando Medical Centre, Mwanza Tanzania and their success rates.

CASE PRESENTATION

Case 1: 28-year-old housewife, primigravida at gestational age of 37 weeks by dates, who underwent a spontaneous vaginal delivery. She delivered a male baby of 3.6kg birth weight with an APGAR score of 8-10 in the first and fifth minutes. An episiotomy was done due to suspicion of a big baby. During episiotomy repair, the surgical suture needle broke within the circle and the retained needle piece retracted into the perineal subcutaneous soft tissues. A pelvic x-ray was done and confirmed the retained needle (**Figure 1**).

Needle removal was attempted through palpation but extraction failed. The following morning the attending Obstetrician consulted the Pelvic Trauma Surgeon and the decision for needle removal under the aid of fluoroscopy was reached. In theatre the patient was placed in lithotomy position and then prepped and draped aseptically, initially repair stitches were removed on the episiotomy wound then two localizing 25 G spinal needles were introduced in two orthogonal planes with their intersection aimed at the retained needle. A curved small artery forceps was used to estimate the depth of the retained needle under fluoroscopy in left perineal subcutaneous soft tissues at 3 O'clock, 4cm from the vaginal orifice leading to retrieval of the retained needle (**Figure 1**). The episiotomy was repaired without extensive dissection or significant blood loss. The whole procedure duration was 2 hours.

***Corresponding Author:** Stephen Swetala

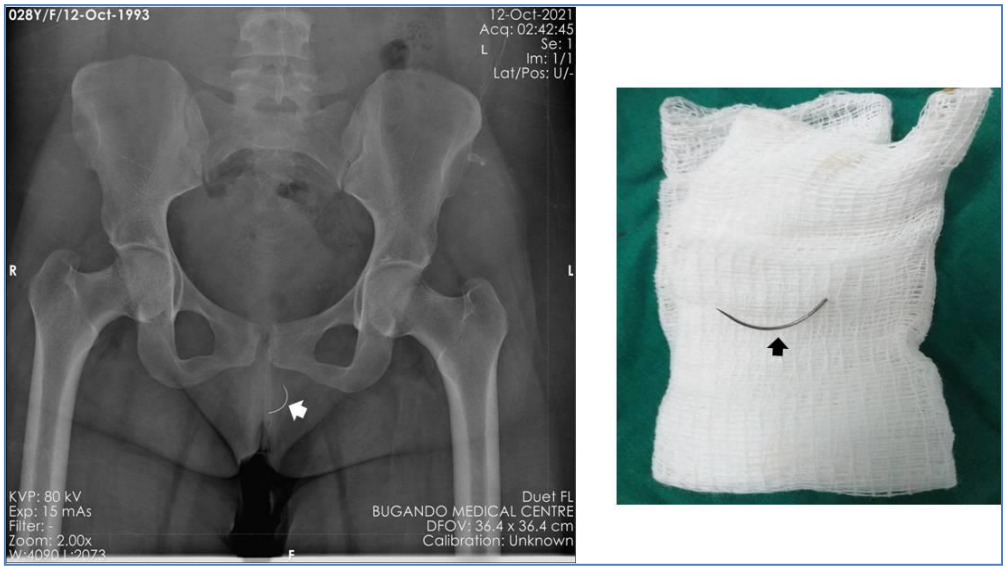

Fig-1: On the left, a Pelvic x-ray of Case 1 demonstrating an opaque curvilinear object (short solid white arrow) within the left paramidline perineal soft tissues in keeping with a retained needle. On the right, post procedural image of the retrieved needle (short solid black arrow).

Case 2: 13 year old student, primigravida who had undergone a spontaneous vaginal delivery of 2.8kg baby boy with an APGAR score of 8-10 in the first and fifth minutes. The patient sustained a second-degree perineal tear and during repair of the tear, the surgical suture needle broke within the circle the retained needle piece retracted into the perineal subcutaneous soft tissues. A pelvic x-ray was done and confirmed the retained needle (**Figure 2**).

The blind exploration was done but was unsuccessful. The attending Obstetrician invited the Pelvic Trauma Surgeon to team up in theatre for needle removal with the aid of the fluoroscopy. The patient was taken to theatre and placed in lithotomy position and was prepped and draped aseptically and all repair stitches were removed and with the aid of the fluoroscopy, needle was observed to be lodged at 6 O'clock, 2 cm from the vaginal orifice.This time round the needle (**Figure 2**) was retrieved within 15 minutes of exploration. The tear was repaired and the procedure ended without significant dissection and blood loss.

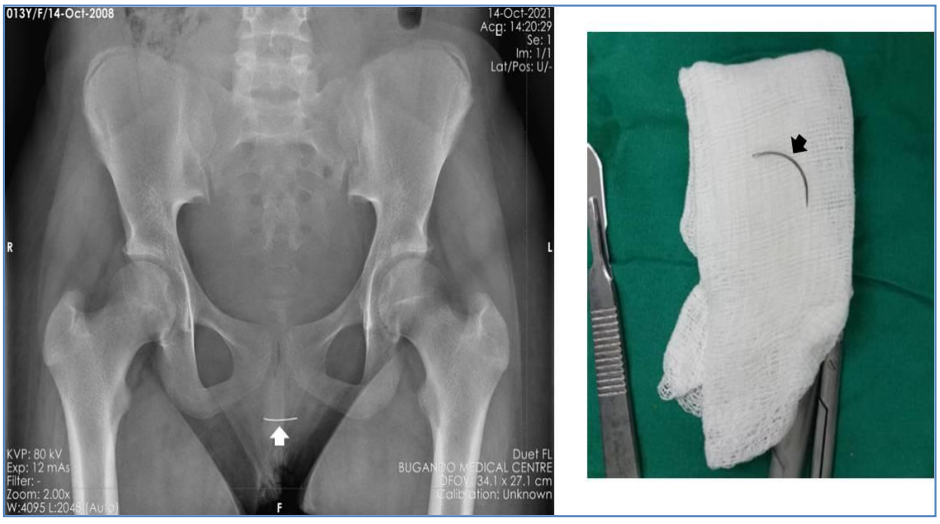

Fig-2: On the left, a Pelvic x-ray of Case 2 demonstrating an opaque curvilinear object (short solid white arrow) within the midline perineal soft tissues in keeping with a retained needle. On the right, post procedural image of the retrieved needle (short solid black arrow).

Case 3: 25-year-old lady, a banker by occupation and primigravida at term, underwent a spontaneous vaginal delivery. She delivered a baby of 2.6kg birth weight with an APGAR score of 7-9 in the first and fifth minutes. Patient sustained second degree perineal tear. During tear repair, the surgical suture needle broke within the circle the retained needle piece retracted into the perineal subcutaneous soft tissues.

Pelvic x-ray (**Figure 3**) confirmed the retained needle. Blind exploration was not done in consideration of its failure rate in the previous cases above. The attending Obstetrician and the Pelvic Trauma Surgeon instead scheduled the patient for needle removal under fluoroscopy. The patient was sent to theater and placed in lithotomy position, prepped and draped aseptically. All repair stitches were removed under Fluoroscopic image guidance the retained needle was located in the perineal subcutaneous soft tissues at 6 O'clock, 3cm from the vaginal orifice. The needle was retrieved within 20 minutes without significant dissection or blood loss.

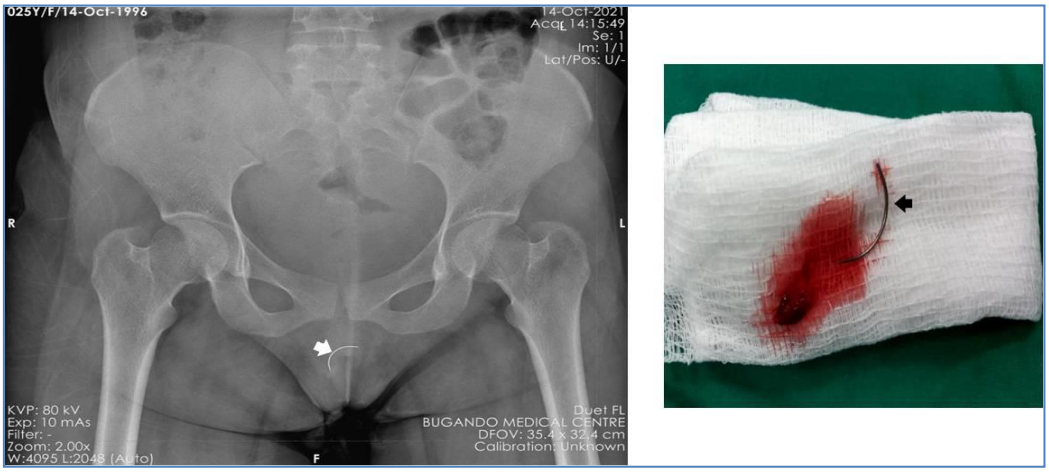

Fig-3: On the left, a Pelvic x-ray of Case 3 demonstrating an opaque curvilinear object (short solid white arrow) within the right paramidline perineal soft tissues in keeping with a retained needle. On the right, post procedural image of the retrieved needle (short solid black arrow).

DISCUSSION

Retained needle following repair of the torn vagina or episiotomy can be frustrating to both the attending Obstetrician and patient. Failure to disclose the event can have medico legal implication for the institution and the attending doctor in the near future [2]. Blind exploration of the needle can be demanding and can cause massive dissection and significant hemorrhage [4]. X-ray fluoroscopic exploration minimizes the risk of massive dissection and hence massive hemorrhage and is associated with short procedure duration [5]. Case 1 and Case 2 underwent unsuccessful blind exploration however, all cases alternatively fluoroscopic imaging guided removal without any complications such as neither significant dissection nor hemorrhage. Early disclosure with advantage of fewer chances for migration to much deeper structures and additionally use ofx-ray fluoroscopic imaging provided the advantage of successful retrieval of all retained needles.

CONCLUSION

Image guidance using x-ray fluoroscopic imaging is time saving with a higher success rate and minimal complications than blind exploration. Early disclosure of a retained needle during the repair of an episiotomy or a perineal tear is very important in order to avoid retrieval complications and medico-legal implications.

Abbreviations

cm – centimeters
G - gauge
kg – kilograms

Ethical Consideration

Approval for the publication of this case series was sought from the Joint CUHAS/BMC Ethics and Review Committee.

Consent for Publication

Written informed consent was obtained from all patients for the publication of this case series and their accompanying images.

Availability of data and materials

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Funding

None

Author's contribution

SS, AK, YM, MN, and HM participated in managing patients and preparation of the manuscript; PSN CM and GG participated in preparation and revision of manuscript. All authors agreed to and approved the final manuscript.

ACKNOWLEDGMENT

All patients for allowing us to write this case series.

REFERENCES

1. Stawicki, S. P., Evans, D. C., Cipolla, J., Seamon, M. J., Lukaszczyk, J. J., Prosciak, M. P., ... & Steinberg, S. M. (2009). Retained surgical foreign bodies: a comprehensive review of risks and preventive strategies. *Scandinavian Journal of Surgery*, *98*(1), 8-17.
2. Hösli, I., Tercanli, S., & Holzgreve, W. (2000). Complications of lost needle after suture of vaginal tear following delivery. *Archives of gynecology and obstetrics*, *264*(3), 159-161.
3. Kazmi, A., Elmatary, A. (2020). Lost Needle during Episiotomy Repair : Case Report. *Crit Care Obst Gyne*, *6*(4); 7.
4. Roychowdhury, J., & Samanta, B. (2008). Missing needle during episiotomy repair. *Online Journal of Health and Allied Sciences*, *6*(3)
5. Marks, M. W., & Smith Jr, D. J. (1989). Removing broken needles and other foreign objects. *Postgraduate medicine*, *85*(2), 234-236.

Cite This Article: Stephen Swetala *et al* (2021). Retained Needle during Post Delivery Repairs of Episiotomy and Perineal tears: A Case Series. *East African Scholars J Med Surg*, *3*(12), 248-251.