



Lost Broken Needle in Pelvis during Episiotomy Repair

S. Fatima, T. Duggan, R. Siraj, M. Tyler, D. Warakaulle, A. Patil

Dept. of Obstetrics and Gynaecology, Stoke Mandeville Hospital, Buckinghamshire Healthcare NHS Trust

Introduction

- Around 1 in 7 deliveries in England involves an episiotomy and up to 90% of first-time mothers who have a vaginal birth will have some element of perineal trauma.¹
- However, this simple procedure can be associated with uncommon but challenging complications such as a broken needle.²
- Recovering the missing needle can be very difficult if the patient is heavily bleeding or if distant migration occurs through tissue planes. Blind retrieval and exploration can be arduous and is associated with massive dissection and tissue trauma. Neglecting the retained needle can cause further migration into deeper tissues, demoralizing effects on patients' health and medico-legal implications.

Case Report

We were presented with a challenging situation after a 2-0 vicryl needle broke whilst suturing an episiotomy following a successful forceps delivery in our unit. There was greater difficulty due to heavy bleeding and increased risk of migration to the deeper tissues.

•This case aims to highlight the importance of MDT working and good situational awareness when there is complexity.

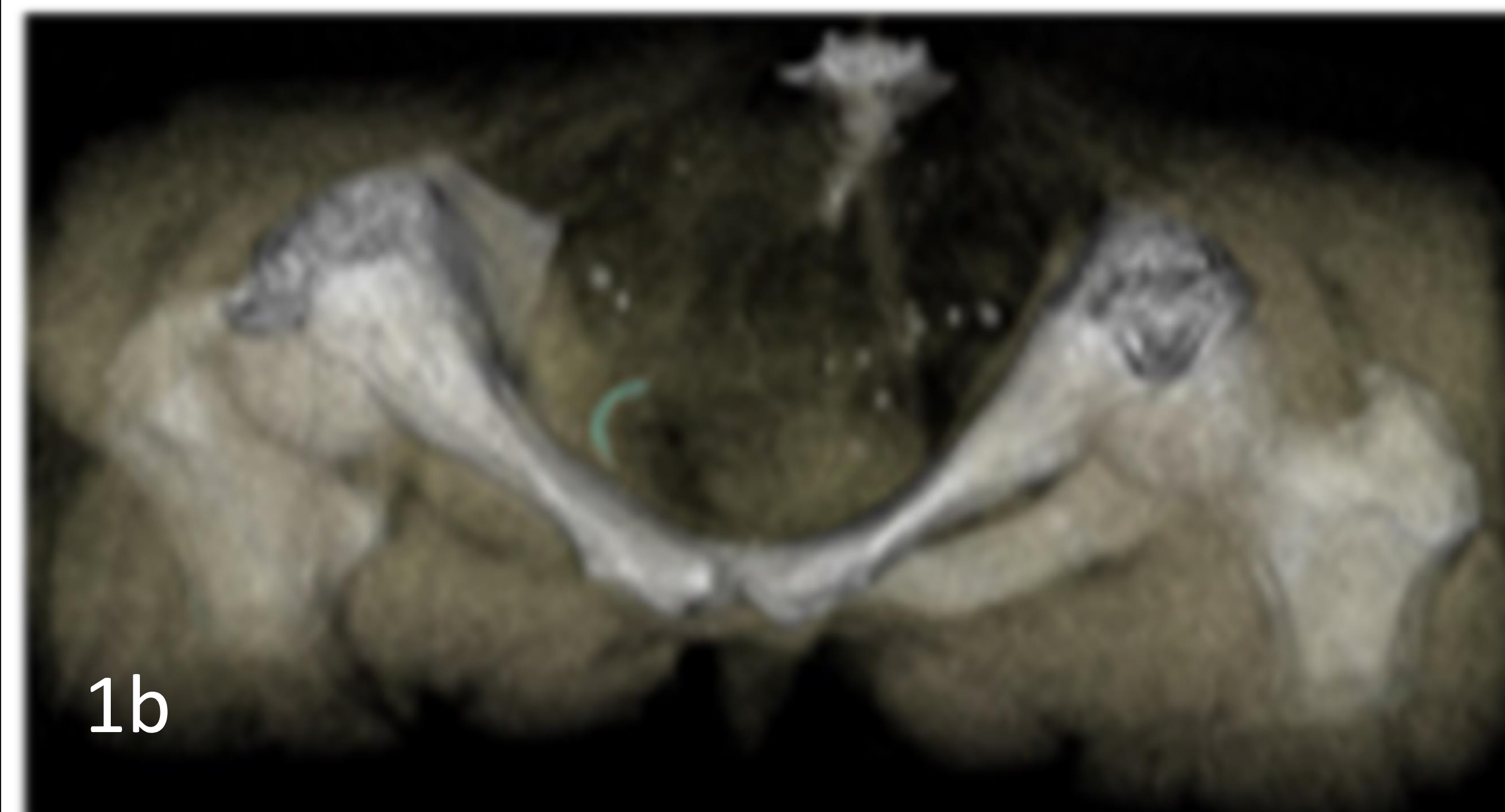


This was a forceps-assisted vaginal delivery that took place just after midnight in an operating theatre. It was complicated by haemorrhage due to a high right lateral vaginal tear along with a medio-lateral episiotomy. The case became unusually challenging when the distal 2/3rd of the 2.0 vicryl needle broke whilst suturing the apex of the episiotomy. The broken piece of needle could not be retrieved on initial exploration by the registrar and the on-call consultant had to attend.

With the aid of image-intensifier the needle was visualized in the pelvis but could not be retrieved despite attempts by 2 obstetric consultants for ~4 hours. Due to significant ongoing bleeding, the decision was made to repair the perineum and to re-explore surgically in the morning.

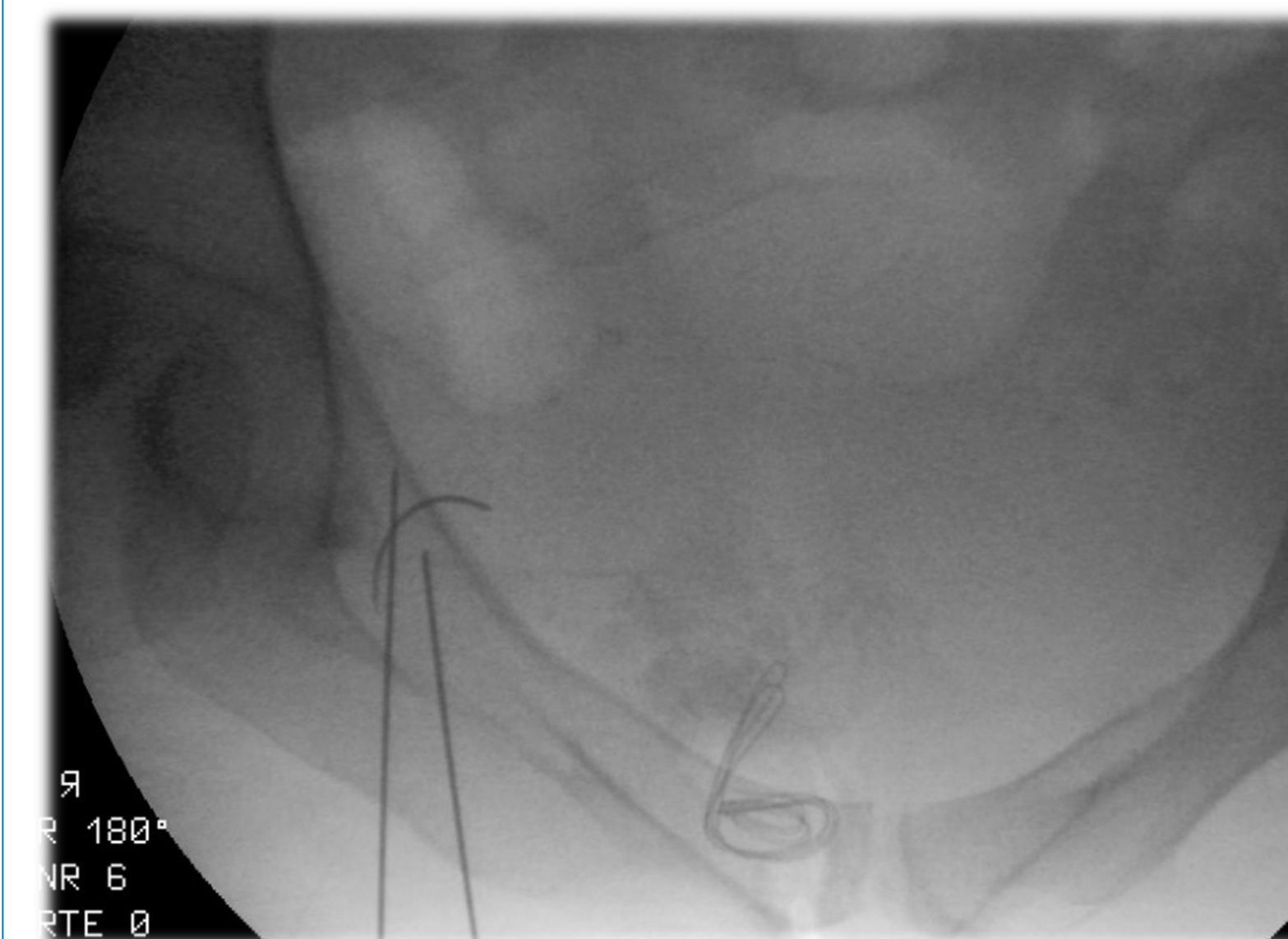
The patient was taken to theatre the following day after a CT scan with a team of two obstetric consultants, a general surgeon, and a radiographer. This attempt was also unsuccessful, and the procedure was abandoned as it was deemed high risk for the patient due to risk of further trauma.

Fig 1. Coronal oblique multiplanar reformatted (1a) and volume rendered (1b) CT images demonstrate the retained suture needle embedded in the subcutaneous fat of the right ischiorectal fossa .



Following an MDT discussion between urogynaecology, plastic surgery, colorectal and radiology teams, this patient underwent an elective surgery 12 days post-delivery. The joint procedure between plastics and a urogynaecologist successfully retrieved the needle with minimal blood loss through a transverse incision to the right buttock over the ischial tuberosity using a mobile image intensifier and K-wires.

Fig2. Intraoperative fluoro-scopic image demonstrates the needle with 2 K-wires placed through the perineal incision to facilitate localisation and removal under imaging guidance.



Discussion

The extensive efforts to retrieve the needle immediately after delivery were unfortunately unsuccessful but the decision to repair the perineal trauma to control the bleeding and take a “pause” was appropriate.

However, the second unsuccessful procedure and associated morbidity could have been avoided with the involvement of appropriate MDT specialists for further discussion to explore possible options in the view of this very unusual complication. During the MDT meeting, the plastic surgeon felt confident in working in this anatomical area to retrieve the foreign body with the assistance of a radiologist and pelvic floor surgeon.

Conclusion

- Expedited involvement of appropriate skill-mix MDT specialists and considering a planned procedure with appropriate imaging facilities is essential to manage such rare clinical scenarios and achieve higher success rate, minimize complications and improve patient's outcomes.
- Detailed counselling of the patient, obtaining informed consent, post-operative de-brief and follow-up also play a crucial role in complicated cases such as this.

References

1. Frohlich J, Kettle C. Perineal care. BMJ Clin Evid. 2015 Mar 10;2015:1401. PMID: 25752310; PMCID: PMC4356152.
2. Kazmi A, Elmatary A (2020) Lost Needle during Episiotomy Repair: Case Report. Crit Care Obst Gyne Vol.6 No.4:7.