

CASE REPORT

Sewing Needles Threatening Pneumothorax: An Unusual Case of Foreign Body insertion in Axilla

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ABSTRACT

Background: This is an unusual case of a young Indian girl who inserted multiple sewing needles, allegedly to clean her axillary sinus tract, which then went on to become life-threatening for her, and required a formal exploration under general anesthesia.

Case: We report a case of self-insertion of 3 sewing needles in the right axilla for cleaning a sinus tract which migrated till the intercostal muscles threatening a pneumothorax, and discuss management of the case.

Conclusion: A skillful history, appropriate imaging and early surgical intervention are a must to correctly diagnose and adequately treat retained foreign bodies in breast or axilla, thereby preventing life-threatening complications.

KEYWORDS

• Foreign body • Needle • Axilla • Breast • Pneumothorax • Life-threatening

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INTRODUCTION

It is not often that we encounter patients who insert objects inside their body unless they are accidental retained fragments following trauma, as a paraphilia or when associated with psychiatric condition called *Polyembolokoilomania*, of which there are multiple reports. This is an unusual case of a young girl who inserted multiple sewing needles, allegedly to clean her axillary sinus tract, which become life-threatening for her and required surgical retrieval of the foreign body.

CASE PRESENTATION

Patient X, 18 year old Indian female, resident of Delhi, presented to General Surgery OPD at Guru Teg Bahadur Hospital in August 2024 with complaint of a sinus tract in her right axilla with purulent discharge, associated with a single painful lump in and around the same region for 2 months, approximately 2*2 cm in size. It was not associated with any other breast lump or nipple discharge. She had a history of tuberculous lymphadenitis of the axilla for which she had completed anti-tubercular therapy 3 months back. On probing further into the onset of recent symptoms, patient gave a peculiar history of attempting to clean the sinus tract in her axilla, using a cotton wisp wrapped over a sewing needle. Allegedly, during her course of action, she could only catch hold of the cotton during removal, while the needle remained in situ. She finally presented to OPD 2 months later owing to worsening of the pain on moving her upper limb. The patient was a non-smoker, non-alcoholic, unmarried, with regular menstrual cycles.

On examination, patient was conscious and oriented with stable vitals. General physical examination was unremarkable. On regional examination of the breast and axilla, inspection revealed a sinus tract about 2.5 cm deep with a 1*1 cm opening covered in slough, present along the right anterior axillary line 4 cm below the axillary fold. Palpation revealed a vague, nodular, ill-defined, tender, immobile, firm induration in an area of 4*4 cm underneath the opening. There was no lump in the right breast and the left breast and axilla were unremarkable.

Blood work-up was within normal limit. Ultrasonography revealed collection of 2-3cc

opening through a 0.5 cm wide and 2.5 cm long sinus tract at the site of complaint. Chest X-ray revealed three linear radio-opaque foreign bodies resembling the contour of needles with one sharp end and an opposite blunt end as shown in Fig 1.



Fig. 1: Chest X-ray PA view demonstrating 3 radio-opaque sharp foreign bodies (arrows)



Fig. 2: NCCT Chest demonstrating a hyperattenuating linear foreign body (needle depicted by arrow) abutting the right intercostal muscles



Fig. 3 NCCT Chest demonstrating needle (arrow) within right breast parenchyma

Non Contrast Computed Tomography (NCCT) of the chest was performed to know detailed three-dimensional spatial orientation of the needles (Fig 2, 3). Thereafter, exploration under general anesthesia was performed with fluoroscopic guidance, where two needles were retrieved superficially from the breast parenchyma. The third needle had migrated deep into the intercostal muscles of the 5th intercostal space piercing them in parasternal location, on the verge of breaching the pleura. After confirming no residual fragments and no pneumothorax by intra-operative fluoroscopy, incisions were primarily closed. Post-operative period was uneventful; patient was discharged with no complaints. Patient has been followed for 2 months and is asymptomatic.

DISCUSSION

Cases of retained foreign objects come to light either incidentally, or based on their characteristic history, which must be skillfully elicited. A scenario exactly similar to ours has never been reported in literature but a needle has been retrieved from near the cardiophrenic angle in another young woman who attempted suicide by inserting it in her left anterior chest wall (Karapolat 2009).¹ Similar scenario was described in a patient of bipolar mood disorder (Soares *et al.* 2018).²

Retained needles can remain asymptomatic for many years or may lead to complications such as inflammation, abscesses, fistulae, or sinuses (Mannarino *et al.* 2017, Bouzid *et al.* 2024).^{3,4}

According to literature, metallic foreign bodies pose a lower risk of infection compared to organic matter (Halaas 2007).⁵ It is sometimes preferable to leave a metallic foreign body in situ rather than attempting removal, as extraction could lead to more trauma than leaving it undisturbed (Mannarino *et al.* 2017).³ Hence, symptoms and the potential for complications should guide the decision to extract a metallic foreign body.

Ethics Approval and Consent to Participate: Not applicable.

Consent for Publication: Written informed consent was obtained from the patient for publication of this case report and any accompanying Figures.

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Abbreviations

OPD: Out Patient Department

NCCT: Non Contrast Computed Tomography.

VATS: Video Assisted Thoracoscopic Surgery

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