



An Unusual Foreign Body (Sewing Needle) in the Spleen

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Abstract:

Background: Impacted foreign bodies are often found and require to be surgically removed from the body. Most commonly skin and the gastrointestinal tract are the effected organs. An impacted foreign body in spleen is rarely seen in civil practice. We report an 18 months child with sewing needle accidentally impacted in the spleen. **Purpose:** To report the clinical presentation, radiological findings, and operative technique employed in retrieval of an impacted sewing needle in the spleen. **Conclusion:** To the best of our knowledge, this is the first case report in English literature of a sewing needle impacted transcutaneously in the spleen.

Key words: Child, Foreign Bodies, Needles, Spleen, Gastrointestinal Tract.

Introduction

Surgeons are often called for to remove impacted foreign bodies from various parts of the body. Foreign bodies are often swallowed accidentally or intentionally and get impacted in the various parts of the GIT from the fauces to the rectum [1,2]. Usual foreign bodies include coin, bone piece, fish bone, nails, button, glass pieces, denture, ear ring, chain, pins and needles [3-5]. Sewing needles have been reported as impacted foreign body in the tonsils. There is no previous report of an impacted sewing needle found in the splenic tissue.

Case Report

An eighteen month old boy was brought to the hospital emergency with an alleged history of a

sewing needle accidentally penetrating into the left side of the mid back while playing on the bed. The child was crying intermittently pointing towards the point of entry. All vital parameters were within normal limits. Local examination revealed a mark of needle penetration with a blood clot over it. However, no obvious foreign body could be seen. X ray of the chest and abdomen revealed an impacted sewing needle in the left subcostal region [Fig.1], with no evidence of any gas under the diaphragm. NCCT of the abdomen showed a sewing needle impacting into the spleen with it's sharp tip penetrating into the stomach [Fig.2,3]. There was no free fluid visualized in the abdomen. Child was taken up for laparoscopy and removal of the foreign body under general anaesthesia.

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Child was placed in semi-recumbent with 45° tilt with left side up. Three 5 mm ports were placed at umbilical region, left lumbar and mid line between the xiphisternum and umbilicus. Pointed sharp end of the sewing needle protruding out from the



Fig.1: X-Ray of chest and abdomen showing needle (indicated by blue arrow) in left upper quadrant of abdomen.

superior pole of the spleen above the splenic hilum and penetrating into the serosa of the stomach was noticed intraoperatively [Fig. 4,5].

Needle was removed laparoscopically. Since the needle was lying in the subserosal plane of the stomach with mucosa intact, hence no efforts were

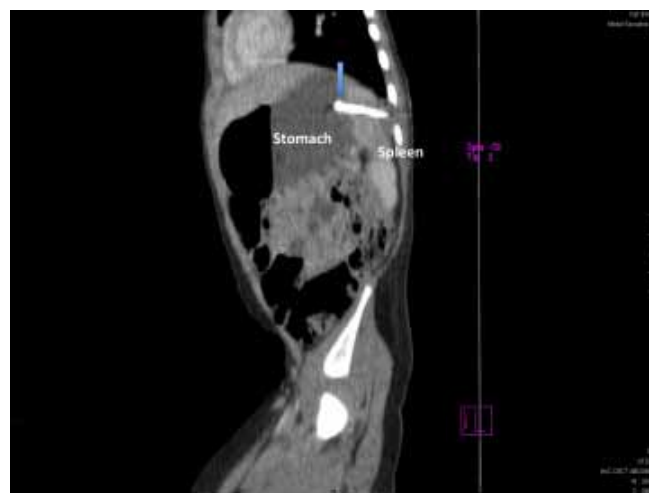


Fig.2: Reconstructed CECT abdomen and lower thorax, sagittal view showing sewing needle (indicated by the blue arrow) impacted into the spleen and piercing into the stomach.

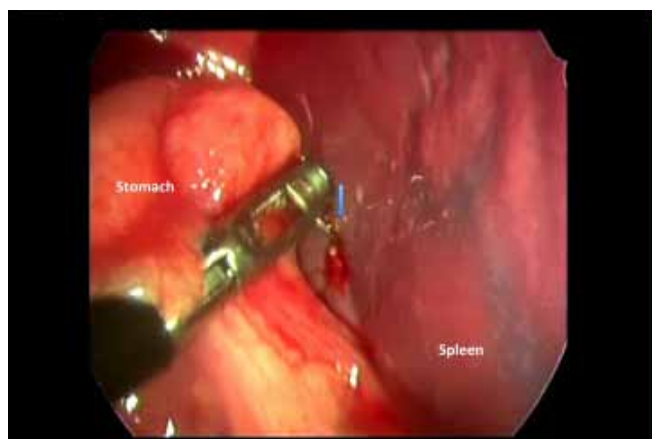


Fig.3: During laparoscopic extraction, sewing needle (indicated by blue arrow) held with grasper, needle seen embedded in spleen and piercing into stomach.



Fig.4: Sewing needle (indicated by blue arrow) impacted in the spleen with its sharp end protruding through the wall of stomach.

made to repair the serosal tear in stomach which occurred while extracting the needle. There was no active bleed from the spleen after removing the needle. There was a small non expanding subserosal haematoma in the stomach, which was left untouched. Child had an uneventful post operative recovery.

Discussion

Impacted foreign bodies are often found and require to be surgically removed from the body [1,2] . Most commonly skin and the gastrointestinal tract are the effected organs. An impacted foreign body in spleen is rarely seen in civil practice. A sewing needle impacted transcutaneously in the spleen is highly unusual and has never been reported in medical literature before. Though with routine roentgenograms, one can confirm the presence of an impacted foreign body, it's precise location could only be confirmed by a CT Scan. An impacted foreign body can often be left alone when it has impacted in the skin or soft tissues in the appendages. An impacted foreign body in the abdominal viscera, however, carries the risk of migration and perforating a hollow viscus leading to peritonitis. There is also a possibility of it's leading to an abscess. An impacted foreign body in abdominal viscera, hence, requires to be removed.

Laparotomy and exploration requires a large incision and mobilization of the viscera to reach all the surfaces of an organ, looking for the foreign body, in cases where they do not present themselves in the easily accessible areas. This adds to the operating time and associated morbidity. With the advancements in laparoscopic techniques it is now possible to safely extract such impacted foreign bodies and estimate the extent of damage caused by it. In the index case, we did not require tackling the stomach injury aggressively, since, the stomach mucosa was intact.



Fig.5: Needle being taken out from subserosal plane of stomach.



Fig.6: Extracted needle still held with grasper inside abdomen.

Conclusion

Transcutaneous penetration of sewing needle into solid organ and further migration to other organ is a reality. Laparoscopy is an excellent tool to deal with such emergencies thus avoiding the morbid procedure of laparotomy and thus facilitating quick recovery.

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