

## **Crocheting Pin in the Falciform Ligament: A rare cause of Recurrent Right**

### **Hypochondriac Pain.**

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**A 24-year-old woman presented with a 3-year history of recurrent right upper quadrant pain. Following inconclusive investigations an exploratory laparotomy was performed, revealing a crocheting pin impacted in the falciform ligament. This case report highlights the importance of a thorough work-up in chronic conditions, even in resource-poor settings. To our knowledge this is the first case report of a crocheting pin impacted in the liver.**

### **Introduction**

Recurrent right upper quadrant and epigastric pain are among the commonest symptoms presenting in an outpatient setting. Particularly in the resource-poor African setting often lacking proper investigations, these complaints are typically first treated empirically with anti-ulcer drugs, reserving investigations for persistent symptoms. This naturally results in significant delays in diagnosis, and often advanced disease at diagnosis.

There are very few reports in the literature of foreign bodies as the cause of recurrent right upper quadrant pain. We report below the case of a crocheting pin causing recurrent right upper quadrant pain, which was detected only at exploratory laparotomy.

### **Case Report**

A 24-year woman presented with a 3-year history of recurrent right upper quadrant pain, described as piercing and radiating to the epigastric region. The pain was apparently relieved by traditional medications, and also several times by anti-ulcer medications. The pain was exacerbated 2 weeks prior to presentation and associated with vomiting, resulting in presentation to hospital and subsequent admission. There was no history of fever.

On physical examination the only significant finding was a positive Murphy's sign. Abdominal ultrasound twice revealed a right hepatic mass with features suggestive of an abscess. Stool examination was positive for occult blood and white blood cells. Based on the above findings medical treatment for a presumptive amoebic liver abscess was initiated, but the condition did not improve.

Nine days later, physical examination showed a tender right upper quadrant mass 6cm below the costal margin. A decision was made to proceed with an exploratory laparotomy. Intraoperatively, a 15cm long crocheting pin was found in the falciform ligament of the liver, which was grossly inflamed. There were also multiple adhesions between the gallbladder, stomach and the porta hepatis. The pin was removed, the falciform ligament excised and adhesiolysis performed. The patient was discharged on post-operative day 9, due to a wound infection managed with dressing changes. Follow-up visits showed no recurrence of the symptoms.

### **Discussion**

Foreign bodies outside the gastrointestinal tract are uncommon in the literature. Most reported cases to date have been intrahepatic in location<sup>i</sup>. They are typically diagnosed through their complications (commonly intestinal obstruction), or remain asymptomatic and are found incidentally during investigations for unrelated conditions<sup>ii</sup>.

Other cases of needles related to the liver have also been reported in the literature. Chintamani<sup>iii</sup> et al in 2003 described a sewing needle which migrated from the GIT and caused an intrahepatic abscess. Li Voti G<sup>iv</sup> et al reported two cases of intestinal perforation secondary to accidental ingestion of

needles in children. Harjai<sup>v</sup> et al also reported two cases of silent needle perforation from the GIT into the mesentery of the small bowel & anterior abdominal wall in one case & the liver and the anterior abdominal wall in the second case.

The clinical history may be positive for (incidental or deliberate) swallowing of an object or surgical instrumentation e.g. dilation and curettage for an incomplete abortion or to terminate pregnancy, or previous surgery with an instrument left behind. Interestingly, no such history was obtained in the present case. Another issue of significance, common in other reported cases, is the age of the patients - usually in the extremes of age<sup>ii,vi</sup>. Another associated factor, sometimes related to old age, is mental disability or a known psychiatric condition. Thus it may be difficult for these individuals to remember if any objects were swallowed or inserted<sup>i</sup>. However this report is of a young woman with normal mental capacity. Even in young individuals with psychiatric illness ingesting foreign objects, the presentations are typically acute, unlike our case.

An abdominal radiograph was unfortunately not obtained in this case, which would have probably aided in the diagnosis. The radiograph was omitted because there was no clinical suspicion of intestinal obstruction or acute abdomen, and the cost of this investigation was significant in our setting. This case also highlights the potential unlimited ability of foreign bodies to migrate within the abdominal cavity<sup>vii,viii</sup>. Unfortunately in our case the route of migration is difficult to ascertain – although the oral route (with penetration via stomach or duodenum) is more likely than a vaginal / uterine / fallopian route.

There have also been reports in the literature of unusual migration of foreign bodies into areas in the abdomen & or other regions of the torso or even outside the torso following a GIT perforation or migration from a vaginal / uterine / fallopian route.

In 2002 Pang and Pang<sup>x</sup> reported migration of a fish bone from the upper GIT to the soft tissues of the neck, just below the skin. Dhillon and Park<sup>x</sup> reported the migration of a laparotomy sponge from the abdominal wall into the lumen of the small bowel. Levey<sup>xi</sup> reported perforation inside a parastomal hernia by a plastic biliary stent. Bulbuloglu<sup>xii</sup> et al reported the migration of a sewing needle presumably from the transverse colon or the ligament of Treitz to the greater omentum. Morales<sup>xiii</sup> reported the migration of a foreign body from the rectum into the epidural space at S1-L5. Frang<sup>xiv</sup> & colleagues reported the migration of a swallowed needle into the renal pelvis after perforation of the duodenum. Patel<sup>xv</sup> et al reported the migration of a fish bone into the common hepatic duct, without perforation. Finally, Stuckey<sup>xvi</sup> & colleagues reported perforation of the caecum by an IUCD which was retrieved via an appendectomy.

In conclusion, this unusual case emphasizes the importance of a thorough pre-operative work-up of patients with chronic abdominal symptoms, and always keeping in mind the possibility of a foreign body even in the absence of pertinent history. Precisely in the resource-poor settings where investigations are expensive to the patient, the cost of a rushed laparotomy may be even less affordable.

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