

progression of the needle from the left iliac fossa to the right and then to the region of transverse colon. Subsequent X-rays for two weeks had shown the needle constantly at the level of the disc between the first and second lumbar vertebrae. Three days prior to surgery she was admitted as an emergency in the middle of the night with severe colicky epigastric pain. Her vital signs were stable. Laparotomy showed that the sewing needle had penetrated into the pancreas through the posterior wall of the stomach. An acute inflammatory reaction was evident in both organs. The "hole" on the stomach side was closed. She made an uneventful recovery. On repeated questioning this girl denied swallowing a second needle (some of the earlier X-rays had shown the needle in the caecal and sigmoid areas).

TABLE - I

Case No.	Age	Duration of Symptoms	Radiological site	Site at Laparotomy
1.	18	Four weeks	T12 L1	Pancreas and Duodenum
2.	46	Ten weeks	T12	Pancreas and lesser Sac
3.	20	Six weeks	L1 L2	Stomach and Pancreas

## DISCUSSION

The majority of swallowed foreign bodies (FB) are asymptomatic. A man in Sweden<sup>3</sup> swallowed 1500 pins and needles, 330 buttons, 167 coins, 12 curtain rings, 11 keys and some fish hooks, stones, buckle and the valve of a bicycle tube. Sewing needles, tooth-picks<sup>7</sup> and chicken and fish bones are however associated with the highest risk of perforation, and may be symptomatic.

The swallowing of pins and needles quite often occurs accidentally as in the harried secretary who is startled whilst she has a pin between her teeth. Likewise the accident may occur because of the habit of housewives who keep a sewing needle in the mouth whilst adjusting a hem. On the other hand, needle swallowing may be an attention seeking device<sup>1</sup> a possibility in one of our patients.

Eighty percent of FB pass spontaneously without complications<sup>4</sup>. In Selivanov's series of 101 patients 12% required a laparotomy and only 7% had perforated. Fibre optic endoscopy has changed the management of foreign bodies, and it is now possible to retrieve them from the upper gastrointestinal tract without surgery, as a day care procedure. Coins, erasers and pins can all be removed easily. Removal of sharp objects whose diameter is bigger than the channel of the endoscope, however, can damage the oesophagus.

Perforation should be suspected when repeated plain X-rays shows the needle in a constant position.

An expert radiologist may be able to confirm the diagnosis by the use of contrast material. The diagnosis is confirmed when the foreign body cannot be visualised on endoscopy.

Laparotomy becomes essential in all cases of perforation. At operation, the lesser sac should be opened and a search made for the needle at or near the pylorus, posteriorly, between the stomach and the pancreas. Removal is a simple matter and the results are most gratifying.

A plain X-ray of the abdomen should be done in all patients with unexplained upper abdominal pain, especially in females in our part of the world.

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## Swallowed Sewing Needle in the Gastrointestinal Tract

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### ABSTRACT

In a four year period three female patients who had swallowed a sewing needle presented for treatment. All had upper abdominal colicky pain. A straight X-ray of the abdomen was the single most useful investigation. Endoscopic retrieval was attempted in one patient. The needle had penetrated the wall of stomach or duodenum and entered into the pancreas in all three patients. Following surgical removal the patients recovered completely.

**Key Words :** Foreign body in the stomach - perforation - Sewing needle.

### INTRODUCTION

A variety of foreign bodies are encountered in the G. I. tract as a result of accidental or intentional swallowing<sup>1</sup>. The majority of these pass spontaneously and are not associated with complications. Some foreign bodies are unable to negotiate the pylorus e.g. a ball bearing, weight measure or an eraser. It is generally thought that a foreign body which does not pass for 4-6 weeks should be removed<sup>2</sup>, preferably endoscopically. When the foreign body cannot be visualized on endoscopy because it has migrated through the wall, laparotomy is indicated.

### PATIENTS AND METHODS

Our experience with three patients is summarised in Table I.

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### CASE NO. 1

An 18 years old girl had three days of abdominal pain with postprandial exacerbation. She remembered having swallowed a sewing needle sometime back. Plain X-rays of the abdomen showed the needle at the level of the first lumbar vertebrae. Repeated X-rays of the abdomen showed the needle in a constant position. Meanwhile her pain became increasingly severe. Laparotomy showed that the needle had perforated the duodenum in the pancreas. Following surgery she made an uneventful recovery.

### CASE NO. 2

A 46 year old female complained of heaviness and pain in the epigastrium for ten weeks-with post-prandial distension. She was treated by her family physician initially with carminative mixture. When the pain did not settle an oral cholestogram was done. This showed a normal gall bladder but a needle could be seen lying at the level of the twelfth thoracic vertebrae. She did not remember having swallowed a needle. An upper gastrointestinal endoscopic examination done elsewhere was normal. Follow-up X-rays showed no change in the position of the needle. Laparotomy showed the needle to be in the pancreas. There was no reactionary swelling on the gastric side. The needle had rusted, and it broke into two pieces on attempted removal.

### CASE NO. 3

A 20 year old female presented with abdominal pain for four weeks following the accidental swallowing of a sewing needle a month earlier. Several X-rays had shown