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Case Report

Acute small intestine obstruction caused by migrating gastrostomy foley's catheter

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ABSTRACT

Acute small intestine obstruction is a common problem and usually caused by adhesions, bands, hernias, volvulus, tumors and foreign bodies. Foreign bodies causing acute intestine obstruction is a rare occurrence. Common foreign bodies are ingested coins, marbles, small toys, bones of nonvegetarian foods, hairs and vegetable fibers. Foley's catheter of gastrostomy, migrating in small intestine and causing acute small intestinal obstruction is one of the rarest causes. Here we presenting a case where the gastrostomy Foley's catheter migrated to small intestine and caused acute intestinal obstruction.

Keywords: Acute small intestinal obstruction, Foley's catheter, Foreign body, Gastrostomy, Migrating

INTRODUCTION

Foley's catheter is sometimes used instead of gastrostomy tube if it is not available or expensive. Migration of Foley's catheter from gastrostomy opening causing acute intestinal obstruction is a very rare phenomenon and only few cases are reported in World literature so far. Most of the complications associated with a gastrostomy tube are inconsequential, but few have the potential to cause significant morbidity if not recognized and treated correctly.[1,2]

Imaging investigations such as plain X-ray abdomen, USG and CT scan of abdomen help in diagnosis of missing catheter. If the ballon of Foley's catheter deflates due to bursting or leaking then the catheter can be sucked in by peristaltic movements of the bowel. It is believed to happen due to the regular wear and tear caused to the external anchors, which makes them loose, allowing the catheter to migrate.[3] We found no relevant statistics, but a current review of published literature (Pub Med Since Inception, using Foley's catheter AND gastrostomy) revealed 38 publications in the English language which indicate that Foley catheter were being used worldwide as temporary gastrostomy tubes and that their use for prolonged periods (median 15 months) was acceptable and cost-effective.[4] Short-term trials of Foley catheter have yielded safety data comparable to commercial gastrostomy tubes.[5]

CASE REPORT

Mr. M. S. 78 years of age was admitted to the hospital with acute intestinal obstruction having pain in abdomen with distension, generalized tenderness and absent bowel sounds. He was suffering with esophageal tumor and had a feeding gastrostomy with a Foley's catheter, 2 months back. At home he was attended by a domestic assistant who was giving him gastrostomy feeds through Foley's catheter and was taking care of the gastrostomy wound and the catheter.

The man was changing the dressing around the catheter entry in the abdominal wall with a dry gauze piece after cleaning the skin around the catheter with betadine solution. He was getting feeds through the Foley's catheter twice a day at the interval of 12 hours. One day in the evening, feed was given early as the man taking care had to visit his relatives in nearby sector and had to live there overnight. Next morning when he came, he

found, that the gastrostomy Foley's catheter was missing. He searched for the catheter on the bed and around everywhere but could not found it. He found the gauze of the dressing on the bed, but not catheter. He also noticed that the patient was in pain and the abdomen was distended. Family members brought the patient to the hospital.

The patient was examined in the casualty department of the hospital. He was found weak and rundown with tachycardia (100/mt) normal BP (108/70 mmHg) and afebrile. Abdomen was having general tenderness and distension with absent bowel sounds. There was a 1.5×1.5 cm open wound in the midline of upper abdomen covered with a dry gauze dressing.

After admission CT scan of abdomen was done which revealed Foley's catheter in terminal bowel with deflated balloon. Exploratory laparotomy was done immediately and Foley's catheter was removed by making a small incision in terminal ileum. Enterotomy was 1.25 cm at antimesenteric border of the ileum 20 cm from ileocecal junction. The Foley's catheter was fully intact without loss of any of its part which was found on thorough checking of the catheter after its removal.

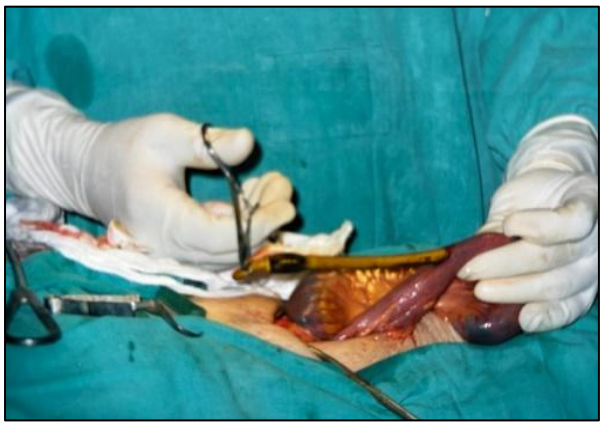

Figure 1: Extraction of Foley's catheter through enterotomy.

Figure 2: Foley's catheter after removal.

The enterotomy wound was closed with 3/0 mersilk. A new 24 fr Foley's catheter placed through gastrostomy opening in the stomach and fixed to the skin of anterior abdominal wall. Patient was treated post operatively with intravenous augmentin and metronidazole for 3 days. Patient gradually improved and discharged after 3 days stay in the hospital without further complications.

DISCUSSION

Feeding gastrostomy with Foley's catheter is a common sight in an oncology ward as most of the cancer esophagus cases require a gastrostomy feeding tube. Dysphagia and malignancy also cause depression which further leads to inability to drink and eat so other ways of feeding are required to maintain the nutrition. Exhaustion, depression and irritative mood superadded with weakness also affect nutrition, when these events happen, a feeding tube will help the medical team to provide nutrition and hydration and give the patient with essential medications.[6]

A percutaneous endoscopic gastrostomy tube (PEG) is inserted in stomach through the anterior abdominal wall for providing nutrition to a person who cannot eat or drink due to certain illness. PEG is being increasingly used to provide nutrition and fluid balance in patients who cannot eat or refuse to eat, although it has not been shown to prolong survival in elderly patients with advanced dementia[7,]

Dementia is such a disease which leads to significant loss of weight due to refusal to eat and in malignancy of esophagus the individual cannot swallow food. PEG in these situations becomes necessary for short or long term to provide nutrition. Late complications include local infection, aspiration pneumonia and tube dislodgement withstanding either out of (common) or into (rare) the gastrointestinal tract.[9] It is important to fix the Foley's catheter with skin when used as gastrostomy tube to avoid it's migration as gastrostomy tube is provided with a bumper to avoid displacement. CT scan reported a deflated Foley's catheter in the terminal ileum causing obstruction of ileum with distended proximal ileum and collapsed distal ileum.

Gastrostomy tube care should be done with precautions. Gastrostomy tubes should be changed every 6 months.10 Nonetheless, if there is no availability, a Foley catheter can be used to maintain the patency of the gastrostomy tube. A nonetheless, a Foley catheter is not a gastrostomy tube, and it can develop even rarer complications such as migration, intestinal obstruction, and even pancreatitis.[11]

CONCLUSION

Foley's catheter when used in place of gastrostomy tube, extra care and precautions are required as migration of the catheter can lead to complications. Caretaker of the patient must be aware of this complication also as it may

prove even fatal. In this case intestinal obstruction developed which if observed late by care giver can prove serious and even lethal. In our case, the dislodgement of Foley's catheter was detected in time.

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