Case Report

RECURRENT ACUTE INTESTINAL OBSTRUCTION DUE TO MULTIPLE ENTEROLITHS

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Abstract

A case of an acute intestinal obstruction, due to multiple enteroliths, is presented.

The most common variety of intestinal stones is where the stones are made of bile salts. A rare variety consists of mineral salts of calcium. Their origin and cause are discussed.

Case Report

A 40 year old male patient was admitted with pain in abdomen, distention, absolute constipation and vomiting for the last two days. He had similar episodes on four occasions in the last six months.

He was a known case of pulmonary tuberculosis and was under treatment for this for the past one year. This treatment included Calcium Tablets with Vitamin-D.

On examination he was dehydrated, B.P. 90/50, the abdomen was distended, and a vague mass was palpable in the right iliac fossa.

Plain X-rays of the abdomen, in erect position (Fig. 1), showed a few fluid levels and three medium sized opacities in the lower part of the abdomen.

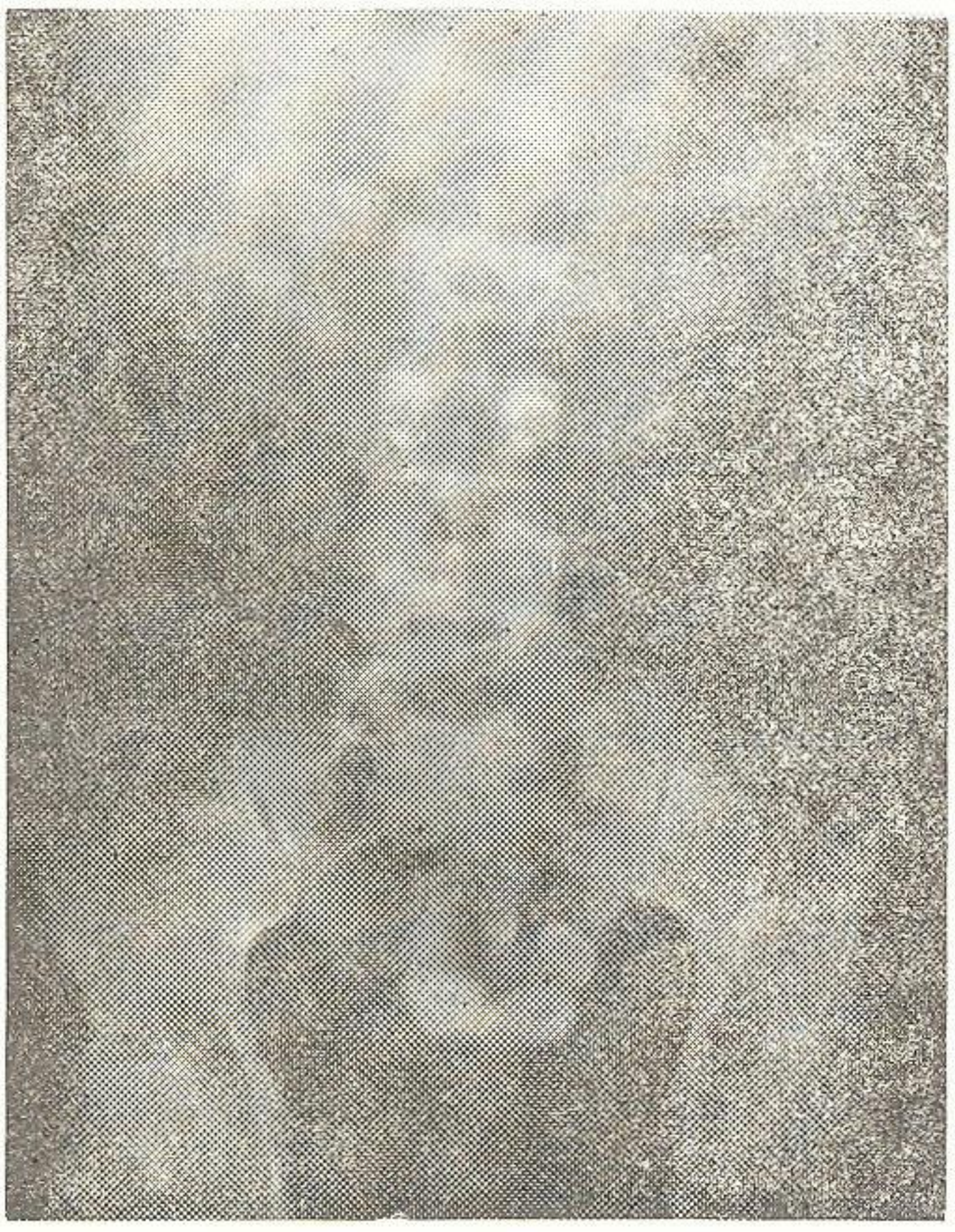

Fig. 1: Plain x-ray abdomen: A few fluid levels and three radio-opaque enteroliths in the lower part of abdomen.

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Laparotomy was undertaken after proper resuscitation. Three oval enteroliths were found in the terminal ileum, one being stuck in the narrow tuberculous ileocaecal junction. A right hemicolectomy was performed, the continuity of the bowel restored by an end to end anastamosis.

The stones had a laminated structure on a nidus of vegetable peels. Chemical examination of the stones was not done.

Discussion

Enteroliths are endogenous foreign bodies formed in the intestine and are more common in lower animals than in humans (New Syndenham Society 1881). These are of two major types:-

A. Those dervied from the bile constituents, which include:-

1. Enteroliths developed by the deposition of calcium salts around a gall stone migrated from the biliary tract.
2. Those which develop primarily in the intestine and contain predominantly cholic acid.

   The second variety, which is not so common, is usually associated with duodenal diverticuli.

B. Those which contain predominantly mineral salts. Such enteroliths are usually composed of calcium salts, but those composed of barium and magnesium have also been recorded. Usually, the calcium is in the form of a mixture of phosphate and carbonate, but oxalate and casein stones, in the intestines, have also been described.

In the distal ileum calcium transport is not very efficient, and in the presence of high pH, calcium salts are more likely to be precipitated in the conditions of stasis in this region, especially whenever there is an excess of calcium in the blood (Singletown 1970). The stasis could be due to intestinal stricture caused by either Crohn's disease or tuberculosis, which is still not uncommon in the Asian countries (Kaufman 1974). They are formed either on a very small nidus of dead bacteria or on a well marked centre of fruit seeds or vegetable peels. They are usually single, but could be multiple. McClough (1975) reported a case where the enterolith was formed in the appendix, it had sloughed through into the caecum, and was passed through into the sigmoid colon.

Usually the enteroliths get stuck in the diseased narrow ileum or ileocaecal junction, and

cause an acute intestinal obstruction. If they manage to pass on into caecum, which happens in bile salt stones, they get stuck in the sigmoid colon, narrowed by the diverticular disease, which is not un-common in the western Countries.

In this case, the enteroliths were formed on vegetable peels probably in the distal ileum, due to the stasis caused by the tuberculous ileocaecal junction. Most probably high calcium and vitamin D intake helped in its formation. Whenever one of these stones got impacted in this stricture, the patient developed acute intestinal obstruction.

References

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