

Rubber Cast of Stomach Produced by Latex Ingestion

by *M. Yusof Said*

Acting Surgical Registrar,
General Hospital,
Johore Baru.

and

Goh Tin Kay

Medical Officer,
General Hospital,
Johore Baru.

Introduction

FOREIGN BODIES found in the stomach are swallowed by accident or design by patients who may be children, the mentally retarded, the insane, the intoxicated or by the exhibitionists who swallow glass, knives or other objects. Of the numerous types of foreign bodies reported in the literature, bezoars are interesting in that they form when fully developed perfect casts of the stomach and require surgical removal. We believe this case of "Rubber cast of stomach produced by latex ingestion" is probably the first recorded in the literature.

Case Report

The patient, K, an 8 year old mentally retarded Indian boy was referred from a district hospital to the General Hospital Johore Baru, on 4 July 1972 with an history of drinking latex 3 days prior to the day of admission. The parents had noticed that the child appeared to be distressed and that he would not eat. They also noticed a hard lump in the child's upper abdomen and it was this discovery which made them seek medical help.

Clinical examination revealed a child of grossly subnormal intelligence. Although 8 years old he could not speak coherently but would scream sporadically without provocation. He was mildly dehydrated. Palpation revealed a rather large firm freely movable mass in the epigastrium. (Fig 1) A plain X-ray of the abdomen (Fig. 2) showed a mass in the upper abdomen corresponding in shape and site to that of the stomach.

We performed a laparotomy on the patient 3 hours after admission and removed a perfect rubber cast of the stomach via a gastrotomy incision 5cm



Fig. 1
The patient with Epigastric Mass outlined.



Fig. 2
Plain X-ray of abdomen showing a mass in the upper abdomen corresponding in site and shape to that of the stomach.

long made on the anterior wall of the stomach in the longitudinal axis. (Fig. 3 & 4). During the period of convalescence in the ward the patient tried to drink a bowl of white 'dettol' solution but was prevented from doing so. We referred him to the consultant psychiatrist who thought that nothing useful could be done for the patient anymore. He was discharged well and at subsequent follow-up on 25 July 1972 he was found to have made a complete recovery and was eating normally.

Family History

Both the patient's parents are apparently normal. The sisters are normal, married with normal children. An elder brother of the patient has been an inmate of Tampoi Mental Hospital the past 4 years. We were not able to ascertain the mental disease for which this sibling was institutionalised.

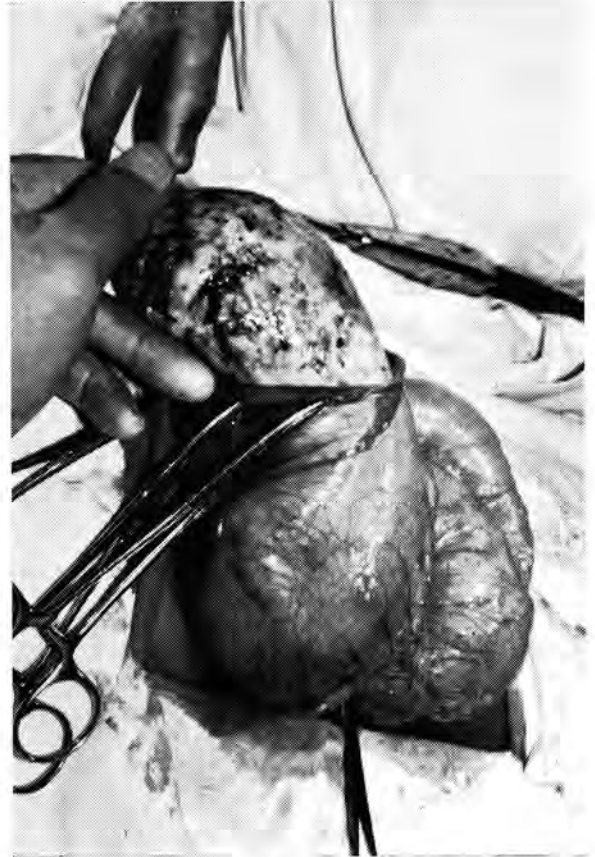


Fig. 3
Rubber cast of stomach being removed via a Gastrotomy incision.

Discussion

Numerous types of swallowed foreign bodies in the stomach have been reported in the literature. For the most part, they cause no symptoms and progress down the alimentary tract to be passed spontaneously without any discomfort. The treatment depends upon the nature and type of object swallowed and the occurrence of complications. Since spontaneous passage may be expected in most cases, conservative management with close periodic observation of the patient is usually adequate. Thus, Clerf (Surg Clin N Amer 14: 77, 1934) reported spontaneous passage of the foreign bodies in 827 of a series of 834 patients, and Ladd and Gross (Abdominal Surgery of Infancy and Childhood, 1941) reported this occurrence in 323 of 337 patients.

Becoar, believed to be derived from the Arabic "badzehr" or Persian "padzahr" meaning counterpoison, is applied to concretions of various foreign or intrinsic substances found in the stomach and intestine of both men and animals. Although



Fig. 4
Perfect rubber cast of stomach.

bezoars are encountered relatively infrequently, their occurrence cannot be considered rare. Up to 1938 De Bakey and Ochsner (*Surgery* 4 : 934, 1938; 5 : 132, 1939) in a comprehensive review of the literature on this subject were able to find 303 recorded cases and since then, according to Tondreau and Kirklin (*Surg Clin N Amer* 30 : 1097, 1950), about 100 additional cases have been cited.

Trichobezoar (hairball) the commonest variety usually forms in the stomach and duodenum of psychoneurotic young women who bite off and swallow the ends of their hair. It forms a complete cast of the stomach and part of the duodenum. The striking similarities between bezoars and the present case are the formation of casts of the stomach in patients who showed psychic or mental disturbances and that the treatment is essentially surgical.

In rubber producing countries formic acid is commonly employed to convert tree latex into a coagulum for processing into sheets. In this connexion it is interesting to note that a case of pyloric obstruction due to formic acid ingestion was reported by J. Lambeth and K. Somasundaram in the *Medical Journal of Malaya*, XXIV, No. 3 March, 1970. In our present case the swallowed latex must have been acted upon by the hydrochloric acid in the gastric juice, converting it into a perfect cast of the stomach. This caused an obstruction which required surgical removal.

Summary

A rare case of rubber cast of stomach produced by latex ingestion is reported. A brief review of foreign bodies in the stomach is made and the similarities of bezoars and the present case are noted.

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