**CASE STUDY**

# Acute abdomen due to vinyl gloves ingestion in a mentally retarded patient: a case report

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## Abstract:

Foreign body ingestion is a common problem, particularly in pediatric age group. Most of these bodies pass unnoticed and without complications. Only 10 – 20% of cases require endoscopic removal. Surgery is indicated in 1% of patients. Vinyl glove ingestion is a rare differential diagnosis of acute abdomen. A detailed history is helpful to reach the diagnosis in case of foreign body ingestion. We report herein a case of vinyl glove ingestion in a mentally retarded patient, who presented with acute abdomen and mandated a surgical intervention.

**Key Words:**

Vinyl glove, ingestion, mentally retarded

## الملخص

يعد ابتلاع الأجسام الغريبة مشكله طبية شائعة ،لاسيما لدى الأطفال. معظم هذه الأجسام المبتلعة تخرج من الجسم دون حدوث أي مضاعفات .حوالي ١٠-٢٠٪ من هذه الحالات تحتاج الي منظار هضمي لاستخراجها ،ويحدث التدخل الجراحي في ١٪ من الحالات.

إن ابتلاع قفازات الفينيل هو تشخيص تفريقي نادر كسبب من أسباب حالات البطن الجراحية الحادة . يعتبر التاريخ المرضي التفصيلي وسيلة مهمة للوصول إلى التشخيص في مثل هذه الحالات .

تستعرض دراسة الحالة ابتلاع قفازات الفينيل بواسطة مريض متخلف عقليا والتي سببت له حالة بطن جراحي حاد استدعى تداخلا جراحيا .

## Introduction:

Foreign body ingestion is a common problem especially in pediatric age group and frequently happen accidently. This problem can also occur in adults, particularly elderly, prisoners, psychiatric and mentally retarded patients. Fish bones, bones, and dentures are the most common foreign bodies swallowed by adults. In prisoners and psychiatric patients, the most common foreign bodies ingestion observed are razor blades, batteries, and other .sharp metallic objects [1-4]

## Case presentation:

A 26 –year- old male, a known case of severe mental retardation and hyperactivity presented from Rehabilitation Center to the Emergency Department with acute abdomen. Due to the mental status of the patient we were unable to obtain a proper history from either the patient or his attendant. The patient was noted to have five loose motions for two days. He had vomited twice and was reluctant to take food. Clinically, he was conscious and vitally stable. Abdominal examination revealed marked tenderness and guarding on the right side. The hematological and biochemical parameters were normal. The chest and abdomi-.nal X-rays were normal

Written Consent was obtained from his guardian and based on the clinical assumption of an acute surgical abdomen, exploratory laparotomy was performed. The exploration revealed a hard mass in the stomach almost obstructing the pylorus. Other intra-abdominal organs were normal. Gastrotomy was performed, and clumps of eighteen swallowed gloves were retrieved (Figure 1&2). The patient had an uneventful recovery. He was followed up in the surgical outpatient clinic and had no .post-operative complications

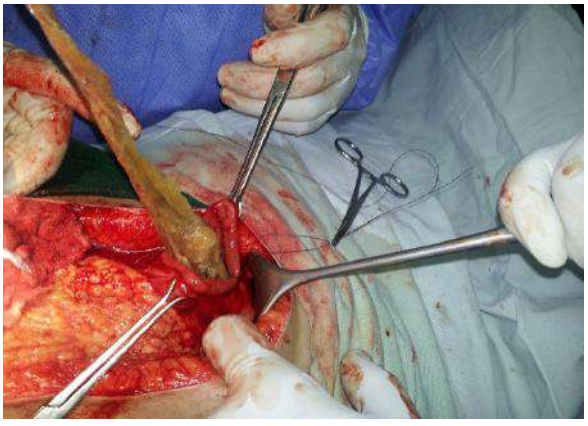


Figure - 1



Figure - 2

## Discussion:

The majority of ingested foreign bodies pass uneventfully. About 10 – 20% may need endoscopic removal, and surgical intervention is indicated only in 1% of patients [1-4]. A detailed history and proper physical examinations are helpful to reach the diagnosis in a case of foreign body ingestion. Sometimes, no proper history can be obtained especially in children and mentally retarded patients, and such patients are more likely to have a delayed presentation [3, 5]. Few cases of vinyl gloves ingestion are reported in the medical literature. Kamal I et alreported five cases of vinyl gloves ingestion in mentally retarded patients, of whom one patient died due to massive gastrointestinal bleeding from a large gastric ulcer caused by a vinyl glove. The other four patients had exploratory laparotomy and removal of the ingested vinyl gloves through gastrotomy. Upper gastrointestinal endoscopy was helpful in confirming the diagnosis .They concluded that attempting endoscopic removal of vinyl gloves in the stomach is not recommended unless they are still soft and pliable because they become hard and stiff and can cause esophageal injury and bleeding. Furthermore, they concluded that the surgical in-.tervention is the best choice [6]

A study by Stringel et al reported four cases of vinyl gloves ingestion in pediatric age group, three of them were mentally retarded and one of them was a victim of child abuse. The management of these cases was as follows: three underwent laparoscopic-assisted removal of vinyl gloves and one had a laparotomy. All of them recovered uneventfully. They concluded that, whenever vinyl glove ingestion is suspected, wait and see is not a good option and a prompt surgical interven-.tion is recommended [7]

Leeds et al. reported a cerebral palsy adult patient with glove ingestion, in which the endoscopic retrieval was unsuccessful. He had laparoscopic removal of the foreign body accompanied with endoscopy uneventfully. They believed that changes seen in the glove are secondary to exposure of latex rubber to the stomach secretions [8]. As mentioned in our case, a decision may have to be made on clinical grounds only, especially in mentally retarded patients. The ingested vinyl gloves can harden, become stiff on exposure to gas-

tric acid and therefore the best approach to remove such a vinyl bezoar is through gastrotomy whether via a laparoscopic approach (preferred) or open approach. The wait and observe policy adopted for metal objects is not advisable as passage of such hardened, irregular surfaced gloves can cause perforations.

## Conclusion:

Attendants in mentally retarded centers are recommended to be aware of the possibility of vinyl glove ingestion. Early surgical intervention is a preferable line of management.

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