Case report: Cola can stay-tab ingestion in an 8-year-old boy

個案報告：一名吞下可樂罐拉環的八歲男孩

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Foreign body ingestion is a common problem in children. The most commonly ingested objects are coins, toy parts, bones, pins, and disc batteries. The radiolucency of the pull-tabs or stay-tabs of Cola cans constitutes another difficulty. In cases with ingested Cola can stay-tabs, as was in our patient, diagnosis should be confirmed at least by oesophagogram to avoid potential complications. (*Hong Kong j.emerg.med.* 2009;16: 265-266)

吞下異物是兒童常見的問題。最常吞下的物件是錢幣、玩具組件、骨、針及圓盤狀電池。可樂罐拉環的放射線可透性構成另一個困難。如像我們的病人吞下可樂罐拉環的個案，最少應要照食道X光，以證實診斷及避免有可能的併發症。

Keywords: Child, esophagus, foreign bodies

關鍵詞：兒童、食道、異物

Introduction

Ingestion of foreign bodies (FB) is a relatively common problem in the United States with an estimated incidence of 120 per million population and is the cause of almost 1500 deaths annually. Ingested objects may be foreign bodies such as coin, plastic toy, bone, pin, disc battery, and food bolus that impact on the oesophagus.[1-3] Toddlers are the most affected group. A child starts self-ingestion usually after six months of age because by that time the child is able to put objects in the mouth.[4] Ingested FB usually passes through the gastrointestinal tract without any problem. However, intestinal obstruction and, in less than 1% of cases, perforation may occur.[5,6] In this case report, a paediatric case of Cola can stay-tab ingestion is presented. The stay-tab was not shown in the X-ray.

Case

An 8-year-old boy presented to our emergency clinic in June 2008 with a history of ingestion of a Cola can stay-tab. The patient stated that he had definitely swallowed the tab, but did not have any symptom of dysphagia or inability to swallow. No pathological signs were found on physical examination. Abdominal and thorax X-rays did not detect any can tab. Thus the Cola can, the tab of which was swallowed by the patient, was studied. On the container, it was stated that the can contained aluminium compound (Figure 1). When a similar can tab was X-rayed, the constituents were determined to be non-radiopaque and thus, could not be visualized. Contrast oesophagogram of the patient was performed. In the evaluation of the oesophagogram, no obstruction or excessive filling was

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observed. The patient was discharged with advice. During follow-up, the patient mentioned that he passed the tab on the second day of the incident.

Discussion

The incidence of FB ingestion is more than 100,000 patients annually in the United States alone.[7] It is accidental in 98% of the incidents and more than 80% occur in the paediatric population. Endoscopic retrieval is required in 10% to 20% of the cases because the objects fail to pass through the oesophagus, pylorus, or duodenal sweep, resulting in obstruction. Although most of the objects that reach the stomach will pass through the gastrointestinal tract spontaneously with no consequence, less than 1% of objects ingested will require surgical intervention. Therefore, for those objects reaching the stomach, observation and serial abdominal radiographs are recommended.[8]



Figure 1. Aluminium (ALU) can and stay-tab of a Cola drink.

While 80-90% of FB ingested are radiopaque, the remaining are non-radiopaque.[9] Most FB can be shown on X-ray. However, as in our case, Cola can tab could not be shown on the X-ray. In children who swallow this FB, it may be overlooked and may result in late complications such as intestinal perforation or obstruction. Considering the extent of consumption of carbonated drinks worldwide, it is striking that to date Cola can ring-pull or pull-tab ingestion has rarely been reported as FB ingestion in the paediatric population. We recommend determination of the element constituents of the can and the tab when ingested. On most cans, the constituents of the can are listed as aluminium or iron. Keeping in mind that aluminium cannot be shown readily on X-ray, such suspected FB ingestion should be investigated at least with an oesophagogram to confirm the presence or absence of FB in the oesophagus.

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