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Case Report

Diagnostic Dilemma of Postcricoid Ulcer in a Young Female

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Abstract

A 32-year old female presented with dysphagia and odynophagia in Emergency Medicine Department. Since the patient was a known case of Schizophrenia, she was initially treated with antipsychotic medications. As there was a progression in symptoms, an endoscopic evaluation was done and a post cricoid ulcer was detected .She was then subjected to biopsy to rule out malignancy and granulomatous diseases. Following this, from a detailed history from her caretakers, an accidental ingestion of a corrosive acid (toilet cleaner) by the patient could be obtained. She was managed conservatively with serial balloon dilatation, anti inflammatory drugs and antipsychotic medications. The patient deteriorated gradually with malnutrition and dehydration and succumbed to death in 6 months time.

Keywords: Dysphagia; Oesophageal ulcer; Stricture cricopharynx; Schizoprenia; Acid ingestion

Introduction

Post cricoid ulcer occur as part of Plummer-Vinson Syndrome, Cricopharyngeal carcinoma, Granulomatous ulcers or as corrossive poisoning. There will be a diagnostic dilemma for postcricoid ulcer in young women if there is no histology proof of malignancy. Psychiatric patients who ingest corrossive acids or alkalies are another group where this dilemma is even more pronounced.

We report a case of a young schizophrenic lady who presented with dysphagia and odynophagia. As she was a known case of schizophrenia, she was treated with anti psychiatric medications. Seeing no improvements in her symptoms, an endoscopic evaluation was done and detected ulcerations in the upper oesophagus. A biopsy ruled out malignancy and granulomatous ulcer. Finally the ulcer was diagnosed as post acid ingestion ulcer after a getting a history of suspected acid ingestion from one of the care takers. Even with psychiatric drugs, fluid and nutritional support and endoscopic balloon dilatation, her condition worsened. The patient deteriorated gradually with malnutrition and dehydration and succumbed to death 6 months after the ingestion of the acid.

Case Presentation

A young female of 32 years presented to the emergency medicine department with complaints of delusions, dysphagia and pain in the throat. She was a known case of schizophrenia on treatment. The emergency doctor referred the patient to a psychiatrist following which the patient was admitted to a mental health facility. She was discharged a week later with improvement in delusions, but no improvement in symptoms.

The patient's condition worsened in the following weeks as she found it difficult to swallow solid food. She started to eat only minimal quantities of semisolid and liquid food. The caregivers also noticed a visible loss in weight. Subsequently, she was taken to a gastroenterologist who then advised an endoscopy. Endoscopy showed a large ulcer in postcricoid region and a stricture at the cricopharynx. The doctor suspected malignancy and did a biopsy of the lesion. Biopsy ruled out malignancy and granulomatous disease. At this juncture, there was confusion regarding the diagnosis. On further questioning, one of the caregivers gave history of a bluish tinge seen in the patient's saliva at the time of initial presentation. She expressed doubts as to whether the blue colour could be due to an accidental ingestion of a toilet cleaning solution that was being used in the institution. That particular brand of toilet cleaning solution contained sodium hypochlorite as the active ingredient and was blue in colour. Now there was a possibility of acid ingestion being the cause of the patient's symptoms, with malignancy and granulomatous diseases already ruled out by biopsy. Serial balloon dilatation was advised and she underwent dilatation three times at 3 weeks interval. The endoscope could not be negotiated beyond the cricopharynx after about two months due to the stricture. An Ultrasound scan of the abdomen did not reveal any significant pathology. The patient was deteriorating gradually as she could not swallow properly due to pain and stricture at cricopharyngeal area. She was not even swallowing saliva, which was partly attributable to her schizophrenic disorder. A feeding tube insertion was attempted but failed due to stricture at cricopharynx and as the patient was not tolerating the procedure due to pain. She was managed with intravenous fluid support for a few weeks. Finally, she succumbed due to severe malnutrition and dehydration after about six months of struggle with the post acid ingestion problem.

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Discussion

The differential diagnosis of upper oesophageal ulcers include malignancy, granulomatous lesions especially tuberculosis and corrosive poisoning.

Hydrochloric acid (HCl; pH, 1) is one of the main causes of the corrosive injuries of the gastrointestinal tract. As it is widely used as a toilet cleaner, it is an easily available substance in households around the world. As in thermal burns, acids produce necrosis of the upper gastrointestinal tract and cause coagulation necrosis. This can lead to acute gastric perforation and metabolic acidosis, which lead to death [1].

Post cricoid carcinoma is a rare but aggressive type of hypo pharyngeal carcinoma with poor prognosis and high mortality. The most common clinical presentation is progressive solid food dysphagia, throat pain and ear ache. The common clinical findings will be ulceration or proliferative growth at the post cricoid region with stricture at advanced stages [2]. Primary tuberculosis of the post cricoid area is very rare and usually present as large granular ulcers. It is more prevent between the ages of thirty and sixty [3].

Ingestion of acid or alkaline caustic substances may cause serious injuries in the hypo pharynx, oesophagus and stomach. Many of the reported patients who ingested caustic substances have accompanying psychiatric disorders including depression, schizophrenia, adjustment problems, and personality disorders. Although the numbers have decreased compared with in the past, cases of patients who ingest caustic substances and visit the emergency room are not rare [4,5].

Corrosive acids cause liquefaction necrosis, mucosal inflammation, and ulceration of the post cricoid region and oesophagus. Liquefaction necrosis occurs for 3 to 4 days and causes intravascular thrombus and mucosal inflammation, in addition to causing local or extensive putrefaction and ulceration. These endoscopic findings can mimic a malignancy of the post cricoid region unless a proper history is elicited. Over a period of 2 weeks, the esophageal wall is thinned with tissue putrefaction, granulation, and fibrosis; Stricture formation, as a chronic complication, is ultimately affected by the depth of the esophageal injury and the degree of collagen accumulation. Therefore, the subsequent possibility of chronic complications or death increases in second- or third-degree injuries [6].

This case is being presented to stress the importance of proper history taking by the primary care physician and to consider the diagnosis of acid or alkali ingestion in a case of upper oesophageal ulcer in a psychiatric patient.

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