Transient Swelling of Parotid Gland after Upper GI Endoscopy - “Anaesthesia Mumps”: Time to Stay Cool

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ABSTRACT

Background and Objectives: Swelling of the salivary gland has been reported as a complication of the general anesthesia and rarely of peroral endoscopy. These have been referred to as 'Anaesthesia Mumps' in the anesthesiology literature. We report the occurrence of transient swelling of parotid gland after upper GI endoscopy.

Methods: We report a series of three cases who developed the right parotid gland swelling after undergoing per oral esophagogastroduodenoscopy.

Results: All the three cases developed right parotid gland swelling immediately after undergoing per oral esophagogastroduodenoscopy and it subsided off its own with a time period of 1 to 2 hours. Moreover, the phenomenon of transient parotid swelling recurred in each case whenever upper GI endoscopy was undertaken and it also subsided off its own.

Conclusion: Clinicians should be aware of parotid gland swelling after peroral esophagogastroduodenoscopy so that we don’t panic and just monitor the patient as it would subside spontaneously after some time. (J Dig Endosc 2012;3(2):30-32)

Key Words: Mumps anaesthesia – Upper GI endoscopy – General anaesthesia – Parotid gland swelling

Introduction

Esophageal Swelling of the salivary gland has been reported as a complication of the general anesthesia and rarely of peroral endoscopy [1-8]. These swellings usually involve the parotid & the submaxillary glands. They are usually painless, unilateral and resolve spontaneously over a period of few hours. These have been referred to as 'Anaesthesia Mumps' in the anesthesiology literature. We report a series of three cases who developed the parotid gland swelling after undergoing peroral esophagogastroduodenoscopy.

Case Reports

Case 1

A 63-year-old female presented to the hospital with severe anemia and hepatosplenomegaly. Ultrasonography and color Doppler suggested the diagnosis of non cirrhotic portal fibrosis. The patient underwent esophago-gastro-duodenoscopy under midazolam sedation (1mg intravenously) and had grade 3 large esophageal varices with red color sign, after which the patient underwent esophageal variceal band ligation. Immediately after the procedure the patient developed painless swelling of the right parotid gland without any dysphagia or odynophagia. The patient again denied any history of parotid mass or salivary gland calculi, or any autoimmune disorder. A firm mass with no erythema or tenderness or neck crepitus was palpated in the region of the right parotid gland (Figure 1a). The patient was kept under observation and swelling started decreasing in size and then completely disappeared within a period of 1 hour of the...
A firm mass with no erythema or tenderness or neck crepitus was palpated in the region of the right parotid gland. The patient was kept under observation and it was noted that the swelling started decreasing in size and then completely disappeared within a period of 2 hours of the procedure. The patient was subsequently discharged after observing him for 6 hours and was feeling alright. The same patient when came for the second session of esophageal varices sclerotherapy again developed similar transient swelling of the right parotid gland which regressed over a period of 2 hours after the procedure.

Case 2

A 16-year-old male presented with upper gastrointestinal bleeding and underwent esophago-gastro-duodenoscopy under midazolam sedation (1mg intravenously). The initial workup revealed extrahepatic portal vein obstruction (EHPVO) as a cause of upper gastrointestinal bleed. The patient had esophageal varices with evidence of red color sign on endoscopy and was subjected to variceal sclerotherapy. Immediately after the procedure the patient developed pain and swelling of the right parotid gland without any dysphagia or odynophagia. The patient denied any history of parotid mass or salivary gland calculi, or any autoimmune disorder.

Case 3

A 21-year-old male who was a diagnosed case of extrahepatic portal vein obstruction (EHPVO) was subjected to esophago-gastro-duodenoscopy under midazolam sedation (1mg intravenously). The patient had large esophageal varices with evidence of red color sign on endoscopy and was subjected to endoscopic variceal band ligation.
Immediately after the procedure the patient developed pain and swelling of the right parotid gland without any dysphagia or odynophagia (Figure 2a). The patient again denied any history of parotid mass or salivary gland calculi, or any autoimmune disorder. The patient was kept under observation and it was noted that the swelling started regressing in size and then completely disappeared within a period of 2 hours of the procedure (Figure 2b). The patient was subsequently discharged after observing him for 2 hours and was fine after that. The same patient has had three sessions of EVL till now and he has developed right parotid swelling during each of these sessions which regressed over a period of 2 hours after the procedure every time.

Discussion

Swelling of the salivary glands after general anesthesia or peroral endoscopy is a rare event. It has been reported after endotracheal intubation for general anesthesia [1-4], bronchoscopy [5], and esophago-gastro-duodenoscopy [6-8]. The usual involved glands are the parotid and the submaxillary glands. These cases demonstrate the involvement of the parotid glands in patients who underwent peroral endoscopy. The etiology is unclear, but different mechanisms have been proposed. These transitory swellings seem to be related to retention of secretions causing a blockage of the salivary ducts[3,5,6]. Dehydration may play a role in causing the secretions to be thick and may predispose salivary-duct occlusion. Parasympathetic stimulation during esophageal intubation, causing parotid vasodilation and enlargement, has also been implicated[3]. No report has demonstrated any change in serum amylase during parotid enlargement. This is a benign, spontaneously resolving, though impressive, finding, which a clinician must be aware of and patient needs observation only. Warm compresses may be helpful for symptoms. Knowledge of this development and the overall benign nature of the problem is important for the patient and the clinician both so that they are aware of and not scared of the swelling.

References


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