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Case Report

Esophageal Melanosis a Rare Cause of Esophageal Pigmentation

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Abstract

Esophageal melanocytosis is a rare benign clinic pathological disorder of the esophagus where melanin (a pigment) is deposited in the squamous epithelium, usually an esophageal epithelium is devoid of melanin pigment. Melanin got deposited in the esophageal epithelium and it causes discoloration of esophageal lumen. Extensive deposition of the melanin pigment is required for the esophageal discoloration. It is a very rare disorder of the digestive system therefore the knowledge about its diagnosis treatment and clinical significance is not yet fully understood. Multiple case reports and previously published data suggest its association with the gastro esophageal reflux but definitive evidence is still lacking. Some studies also labeled this condition as a pre malignant condition.

Keywords: Pigmentation; Alcohol; Tobacco

Case Presentation

We have a patient who is 42 year old female with no prior comorbid presented in the gastroenterology OPD with the chief complaints of abdominal fullness, regurgitation of acidic contents and dysphagia to solids for last 4 months. There is history for hoarseness of voice in the past for which she underwent FODL and was found to have vocal cord nodule biopsies were taken, which were in conclusive. No other significant past surgical or personal history and there is no history of alcohol or tobacco consumption but occasionally she used to take betel nuts. She was advised proton pump inhibitor and pro motility agent to treat her dyspeptic symptoms for which her response was sub optimal there was no physical gross abnormality notified during the clinical examination. For the above complaints she as advised for upper GI endoscopy. The patient underwent upper GI endoscopy for the above complaints. A dark brown to blackish colored mucosa of the entire esophagus which is occupying more than two third of the esophagus lumen was noted. These patches were denser at some areas with intervening normal esophageal mucosa. Multiple biopsies of the affected esophageal area was taken and collected in formalin jar and sent for histopathology. For the dyspeptic symptoms multiple gastric antrum samples were also taken as there was hyperemic antral mucosa to rule out H. pylori infection and collected in another separate jar and sent for histopathology. No other pathology was found in upper GI endoscopy. In the esophageal biopsies specimen showed multiple melanin loaded cells seen in the esophageal epithelium, these cells do not contain any atypical cells. The biopsy specimen was consistent with the esophageal melaonsis with some chronic inflammation.

Gastric antral samples which does not show helicobacter pylori gastritis. She was advised life style modification, daily exercise and was prescribed long term proton pump inhibitor therapy for 4-6 weeks. She was followed up in the OPD where her clinical condition and her symptoms got improved.

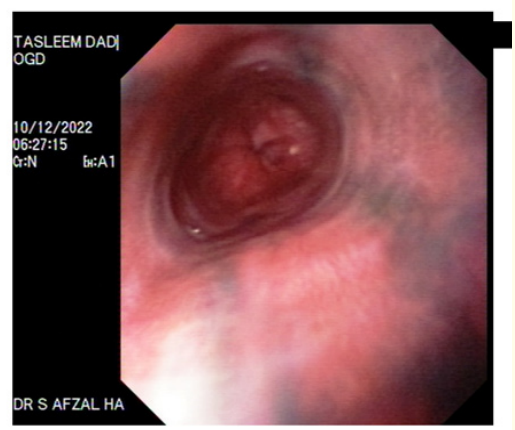

Figure 1: Endoscopic view of the esophagus-Linear blackish lines with intervening normal mucosa seen in the esophagus.

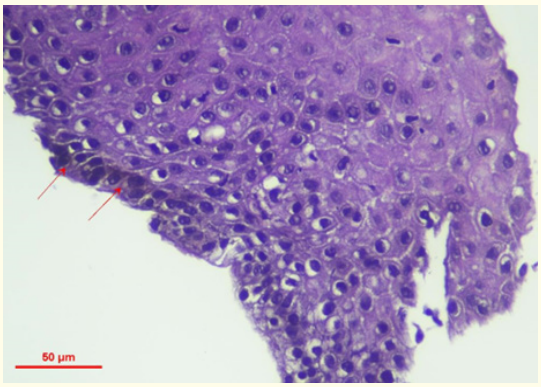

Figure 2: Histopathology of the esophageal mucosal lesion.

Discussion

Esophageal melanosis is a rare clinicopathological condition which is usually a benign condition such as chronic esophagitis and gastro esophageal reflux disease; however it should be differentiated from other similar disorders that could result in rather dangerous outcomes. The exposure to acetaldehyde in individuals with the aldehyde dehydrogenase 2 (ALDH2) genotype being the precipitating factor for melanosis has been suggested. Yokoyama., *et al.* [1] also reported that esophageal melanosis is a precursor to esophageal carcinoma, melanoma, and esophageal dysplasia. Therefore to identify this disorder and regular follow up is required in order to detect early malignancy and to dealt with it promptly .Endoscopy series report this rate to be between 0.07% and 2.1% [2-7].

Histologically, the esophagus mucosa normally does not contain melanocytes. There is no specific symptom or clinical entity pertaining to this pathology, and it is usually incidentally diagnosed incidentally during the endoscopy examination. Esophageal melanosis should be differentiated from disorders such as primary pigmented melanoma, which is a rare disease of the digestive tract originating from the mid and lower parts of the esophagus and can be differentiated by its polypoid appearance. The other rare differential to be considered is esophageal necrosis.

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