Case Report

Schatzki's Ring in a Nigerian at Gastroscopy

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Abstract

Schatzki's Rings are the most common of the types of esophageal rings. Their prevalence varies with the population being studied and the diagnostic technique deployed. They are rarely documented and described from reports emanating from this environment. This article seeks to document one such case and briefly discuss aspects of its clinical significance and management.

Keywords: Schatzki's Ring, Nigeria, Gastroscopy

By definition, an esophageal ring is a concentric, smooth, thin (3-5 mm) extension of normal esophageal tissue consisting of 3 anatomic layers of mucosa, submucosa, and muscle. They are most commonly encountered in the lower third of the esophagus but can be present anywhere along the length of the structure.

The most frequently encountered of these esophageal rings is the Schatzki's ring (SR). SR is defined as a thin, symmetric, concentric, mucosal structure projecting into the esophageal lumen and located at the esophagogastric junction[1]. SR consists of only mucosa and submucosa[2].

SRs are not an uncommon finding as western literature quotes a prevalence rate between 0.2 to 14% depending on the diagnostic technique deployed[1] and this quoted figure can go as high as 15% to 26% among those being investigated for dysphagia with endoscopy[3]. However, SRs are a rare finding endoscopic series from our locality.

The presence of SR does not result in significant complaints in most patients as most are thought to be asymptomatic incidental findings. But SR can also result in esophageal symptoms-particularly as it is thought to be the commonest cause of long-term episodic dysphagia in adults[3,4].

This article seeks to document one such SR finding from a Nigerian who presented for gastroscopy and present a short discussion of pertinent clinical aspects and management.

CASE REPORT:

A 64 year old man was referred for a routine screening endoscopy at our Nigeria-based endoscopy clinic. The man had no symptoms or signs referable to the gastrointestinal system. Notably he denied any history of difficulty or pain on swallowing, troublesome heartburn, regurgitation, nor dyspepsia.

The procedure was uneventful and the only interesting finding was a circumferential, mucosal projection in the lower third of the esophagus at the squamo-columnar junction. The ring did not result in any significant compromise of the caliber of the esophageal lumen and it anatomically marked the proximal margin of a hiatus hernia. The surrounding mucosa was free of erythema or erosions (Figure 1).

DISCUSSION:

Schatzki's ring (SR) is a thin circumferential ring located at the squamocolumnar junction in the lower esophagus and comprising of mucosa and submucosa, it usually marks the proximal end of a hiatus hernia[2,5].

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Despite being characterized as a distinct clinical entity since 1953 by Schatzki and Gary,[4] the pathogenesis of SR is still unclear.

At least 4 hypotheses have been proposed for this:

1. The ring is a pleat of redundant mucosa that forms when the esophagus shortens transiently or permanently for unknown reasons[6].
2. The ring is congenital in origin[1,7].
3. Some also consider it a short peptic stricture occurring as a consequence of gastroesophageal reflux disease[2,8,9].
4. Yet others opine that SR is a consequence of pill-induced esophagitis[9-11].

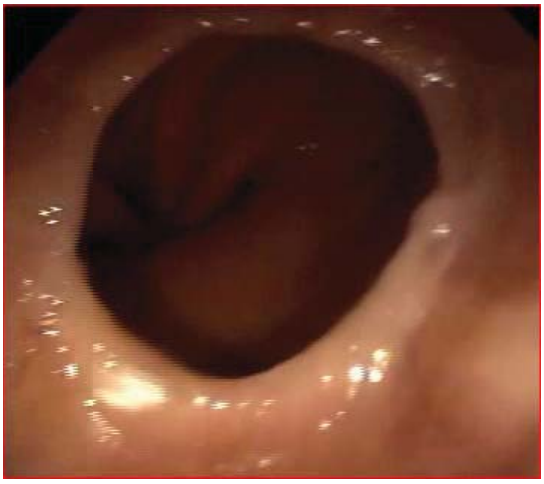

Figure (1): Schatzki's Ring at the lower esophagus with a hiatus hernia visible beyond it.

These hypotheses may not be mutually exclusive as there are cogent arguments that both support and refute each of them[12]. SRs have also consistently shown to be associated with many other esophageal abnormalities particularly in the symptomatic individuals. This therefore suggests a multifactorial etiology[9,12].

SRs are rare in children and most are detected after the age of 40 years in western literature[8,13] our index case was 64 years old.

Histologically, the superior surface of SRs are usually covered by squamous cell epithelium and its inferior surface is layered by columnar epithelium The esophageal web may mimic an esophageal ring, but the web can be defined as covered solely by squamous epithelium[2].

Most SRs are considered asymptomatic[14] as was our patient. But these lesions are well documented to be a prominent reason for dysphagia in adults, this was confirmed by a large scale survey of more than 30, 000 dysphagia patients which showed it was the fourth commonest association with this symptom[3].It appears that the dysphagia of SR is intermittent, episodic, non-progressive dysphagia to solids(dysphagia to liquids is usually not present). Typically, during hurried ingestion[9,14].

Large-bore endoscopic dilation or bougienage (15 mm/45 Fr or larger) is the mainstay of therapy for symptomatic SRs. This procedure is frequently performed with either Savary or Maloney dilators, though balloon dilation has also been reported (which work by fracturing the ring—not merely stretching it). However, dilation should not be performed in patients with eosinophilic esophagitis, Zenker diverticulum, bullous disease, or other conditions that significantly increase the risk of perforation or other complications[15]. When performed properly, bougienage is quite successful at relieving symptoms.

Post dilation or bougienage, aggressive use of acid suppressants has been shown to be superior to placebo at reducing the incidence of relapses[16].

This case report represents a unique gastroscopy finding from Nigeria where it is rarely noted in published literature. The write up seeks to sensitize the endoscopy practitioners in our environment as to the reality of this and further enlighten with

discussions on pertinent clinical aspects and management.

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