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A STUDY OF XANTHELASMA OF THE UPPER GASTROINTESTINAL TRACT

Gastroenterology

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ABSTRACT

Introduction Xanthelasma of gastrointestinal tract is an uncommon lesion which is diagnosed incidentally during endoscopy. This study was done to see the clinical profile of Xanthelasma of the upper gastrointestinal tract.

Methodology The study was conducted at Madras Medical College, Chennai between Jan 2016 to July 2017. Thirty five patients diagnosed with xanthelasma in the upper gastrointestinal tract by endoscopy were analysed with respect to the associated endoscopy findings. All patients underwent rapid urease test for Helicobacter Pylori infection. Results were analysed with SPSS 17 software.

Results Of the 11000 patients studied thirty five had xanthelasma. Stomach (92.3%) was the most common site. Five (14.2%) patients had upper GI malignancies and two had non GI malignancies. Helicobacter Pylori infection was found in twenty one (70%) of the patients.

Conclusion Xanthelasma is an uncommon finding during endoscopy. The most common site is stomach. There is no significant correlation between Xanthelasma and upper GI malignancies. There is increased prevalence of Helicobacter pylori infection in patients with xanthelasma of gastrointestinal tract.

KEYWORDS

Xanthelasma, Gastrointestinal Tract, Endoscopy, Helicobacter pylori

INTRODUCTION

The gastrointestinal xanthelasma were first described in 1887 as "lipid-laden macrophages in gastrointestinal mucosa." They were also called as "lipid islands or xanthoma"[1]. They are most frequently seen in stomach[2]. The incidence of gastric xanthelasma ranges from 0.018% to 0.8% in various endoscopy series studies[3] and it is more in women and increases with age. Only a very few case reports has been reported its occurrence in other sites like oesophagus, duodenum and colon.

The importance gastrointestinal xanthelasma remains unclear. They may occur as a result of an inflammatory response to mucosal damage, an early stage in the evolution of gastric malignancy or as an effect of aging of the gastric mucosa[4].

On endoscopy they are seen as of yellow-white, well-demarcated, single or multiple nodules or plaques, with a size varying from 1 to 10mm in diameter. The endoscopic appearances of gastric xanthelasma may mimic gastric carcinoid tumours or hyperplastic polyp[5]. Xanthelasmas are asymptomatic and they are usually diagnosed incidentally during endoscopy.

Histologically xanthelasma characteristically is seen as dense aggregates of foamy histiocytes in lamina propria. Outside the GI tract, xanthelasma is more frequently seen in soft tissues and skin. However, their histopathological features are identical regardless of location. These foamy histiocytes are found to have CD68 positivity and S-100 and cytokeratin negativity on immunohistochemical staining[6].

This is an observational study of xanthelasma of the upper gastrointestinal tract. The associated upper gastrointestinal tract lesions and the presence of Helicobacter pylori infection were analysed.

MATERIALAND METHODS

All patients who were diagnosed with xanthelasma in the upper gastrointestinal tract during endoscopy were included in the study. The study period was from Jan 2016 to June 2017. A total of thirty five cases diagnosed during 11000 endoscopic procedures done during the study period for various indications, were included in the study. Study was conducted as an observational study at Madras medical college, Chennai, India. All patients were included in the study after obtaining written consent for participation in the study. All were analysed with respect to their associated endoscopy findings and the presence of Helicobacter pylori infection diagnosed with rapid urease test. Upper GI endoscopies were performed by an expert endoscopist at our institute. The number, colour, shape, size, and location of xanthelasma were noted .The presence of associated upper GI conditions, such as malignancy, esophagitis, gastritis, or peptic ulcer disease were taken into consideration. All the lesions suspected to be xanthelasma were biopsied and histopathogical examination was done by a single expert pathologist. Samples were also taken from antrum and rapid urease test was done to look for Helicobacter pylori infection. All results were tabulated using word excel sheets and analysed with SPSS 17 software.

RESULTS

Upper gastrointestinal xanthelasma was seen 35 patients among 11100 endoscopies done. All were incidentally picked up on endoscopies done for varied reasons. Of the thirty five patients twenty four (68%) were males and eleven (32%) were females. Mean age was 53.6± 13.8 years.

Peptic ulcer dyspepsia was the most common symptom among patients who found to have xanthelasma followed by late onset dyspepsia. Four patients (13.3%) had GI malignancies of which three had oesophageal malignancy (10%) and one had gastric malignancy (3.3%). Two patients had non GI malignancy involving thyroid gland and secondaries neck with unknown primary. Rapid urease test for Helicobacter Pylori infection was found in 21 (70%) of the patients.

Table 1 shows distribution of xanthelasma according to the location in upper GI tract. Stomach is most common site of occurrence in upper GI tract. In the stomach antrum was the most common site. Eighteen (50%) of the patients had only a single lesion and all were localized to antrum of stomach. In the presence of a xanthelasma found in duodenum or oesophagus it was always associated with another xanthelasma in the stomach.

TABLE1. Distribution of patients according to the location of Xanthelasmas and number of lesions

Location	No. of Xanthelasma seen	Percentage %
Esophagus	3	4
Stomach	69	92
Cardia	9	13
Corpus	14	20.4
Antrum	46	66.6
Duodenum	3	4

DISCUSSION

The significance of gastrointestinal xanthelasma is not known. It may be a manifestation of generalized systemic disorder as in metabolic syndrome or a local pathology like multifocal atrophic gastritis[7]. The incidence ranges from 0.018 % as in Europe as compared to 0.8 % in an Asian country like China. In an autopsy study by Kimura et al. incidence was as high as 58%. The authors concluded that the special search for this lesion is the reason for such high incidence. The incidence in our study is 0.31 and is comparable with the range mentioned in above studies. Xanthelasma is more prevalent with increasing age[8]. In our study showed 19 (54 %) patients were above the age of 50 years. Study by Oviedo et al showed a male predominance

with a sex ratio of 3.3: 1[9]. Our study showed similar (3.1: 1) sex distribution. However study by kimura et al showed equal incidence in both sexes. All patients were asymptomatic for xanthelasma as all were found incidentally during endoscopy done for various indications.

Gastrointestinal xanthelasmas usually occur in the gastric antrum along the lesser curvature. Our study showed a higher occurrence of xanthelasma in stomach. Three (4%) had oesophageal and three (4%) had duodenal endoscopic xanthelasmas in this study. Many case reports on oesophageal xanthelasma have been published. Very few case reports are published on duodenal xanthelasma. This study showed three patients (4%) had xanthelasma in the duodenum.

About 4 (11.4%) of the patients in study population had gastrointestinal malignancy. Three patients had (0.8%) had oesophageal malignancy and one (0.28 %) had gastric malignancy. Study by Gencosmanoglu et al showed the presence of gastric dysplasia in 1 % of 17 gastric xanthelasmas studied[1]. A recent retrospective study (n =3238) from Japan showed that Gastric xanthelasma was observed in 47.6 % of patients with gastric cancer. The presence of xanthelasma in the fundus or body of stomach was significantly associated with gastric cancer[10]. Our study showed one patient had single xanthelasma in proximal body along lesser curvature and nine patients had xanthelasmas in the cardia of the stomach as comparable to above studies. Chi Square test showed there was no statistically significant association between xanthelasma and gastrointestinal malignancy. None of the patients in this study had gastrointestinal and cutaneous xanthelasma occurring together.

About 21 (70%) of the patients with xanthelasma were tested positive for Helicobacter Pylori. This result is similar to the finding in study by Gencosmanoglu et al[1]. Another study by Hori et al, on analysing 145 gastric xanthelasma lesions found a possible association between infection with Helicobactor pylori and gastric xanthelasma[11]. In our study increased prevalence of Helicobactor Pylori was seen in patients with xanthelasma. But the significance of this association is not known.

CONCLUSION

In conclusion, xanthelasma is a benign condition of the upper GI tract which is diagnosed incidentally on endoscopy. It occurs more commonly in stomach. The occurrence of xanthelasma has no association with any upper GI malignancy. There is increased prevalence of Helicobactor Pylori infection in patients with xanthelasma of the upper gastrointestinal tract.

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