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Case Report

Surgery Section

Isolated Duodenal Adenoma Presenting as Gastrointestinal Bleed - A Case Report

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ABSTRACT

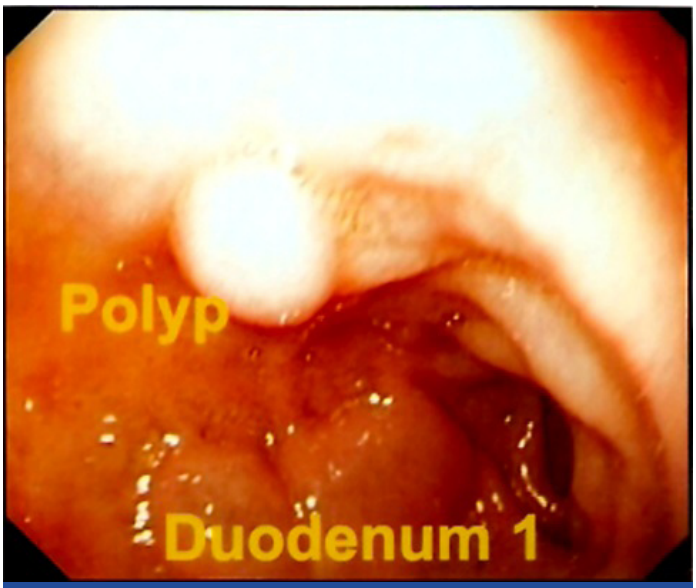
Duodenal polyps are rare lesions in patients undergoing Esophago gastro duodenoscopy (EGD), and the prevalence varies widely with range of 0.3-4.6% of cases. Duodenal adenomas most commonly occur in association with familial adenomatous polyposis. Isolated occurrence of such adenomas is very rare and presentation as upper gastrointestinal (GI) haemorrhage is even rarer. We herein report a case of elderly male patient presenting to emergency department with features of upper GI bleeding. Patient was resuscitated followed by EGD was done. On EGD bleeding duodenal polyp was found and endoscopic polypectomy was done to control the bleeding. Subsequent colonoscopy was done and was normal. The histopathological examination of the polypectomy specimen revealed tubular adenomatous polyp which is a premalignant condition. We also highlight the clinical presentation, histological types and treatment modalities available in the literature. However, there is lack of consensus regarding the outcome of various procedure described in the literature.

Keywords: Endoscopic polypectomy, Isolated duodenal polyp, Upper gastrointestinal bleed

CASE REPORT

A 60-year-old male patient presented with history of passing black coloured stool for 15 days. Clinically, there was pallor with documented haemoglobin of 5.9 gm%. Patient was resuscitated with intravenous fluids and two units of packed red blood cells. Other routine blood investigations were normal. Once the patient was haemodynamically stable, EGD was performed which revealed normal esophagus and stomach, and a 1cm sessile polyp in the first part of the duodenum [Table/Fig-1]. Endoscopic polypectomy was performed and specimen was subjected to the histopathological examination (HPE). Colonoscopy didnot reveal any significant pathology. Upper gastrointestinal endoscopic re-assesment was done three hours after polypectomy to confirm haemostasis at the polypectomy site. Postprocedure pneumoperitoneum was ruled out by abdominal imaging.

HPE of excised specimen showed tubular adenomatous polyp with mildly distorted villous structure and tubular hyperplasia of the glands, focal mild dysplasia of the glandular epithelium and mild inflammatory cell infiltration in the lamina propria [Table/Fig-2].

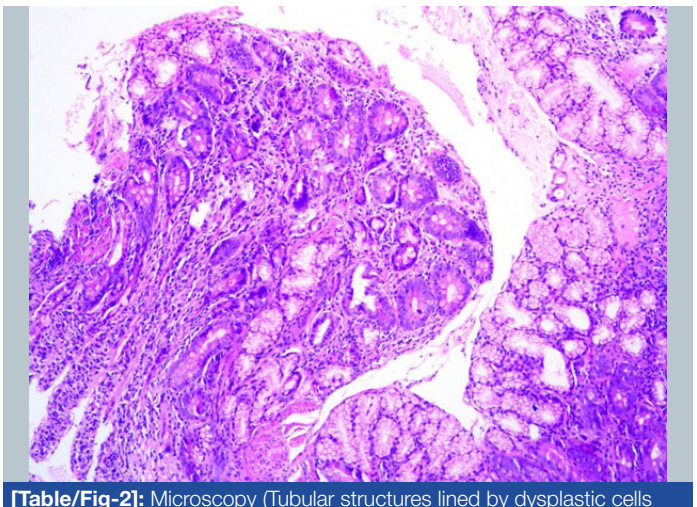


[Table/Fig-1]: EGD showing sessile polyp in first part of duodenum

DISCUSSION

Duodenal polyps are rare lesions with different pathological manifestations. Varieties include adenomas, submucosal tumours (lipomas, endocrine tumours and gastrointestinal tumours), Brunner's gland hyperplasia and hamartomas. The prevalence of duodenal polyps, as detected during EGD performed for other reasons, ranges from 0.3-4.6% [1]. Around 20% of small bowel adenomas occur in the duodenum. The malignant potential of these lesions is reportedly between 35% and 55%. These adenomas may produce symptoms mimicking those of ulcer disease, although majority of the patients are asymptomatic at the time of diagnosis.

Adenomas can occur sporadically or as part of a polyposis syndrome with FAP or Gardner's syndrome. Both groups carry malignant potential but polyposis syndrome scores higher among the two. The majority of the sporadic duodenal adenomas are flat and sessile and occur in the 2nd part of the duodenum. Patients with sporadic duodenal adenomas carry an increased risk of colonic neoplasia and should be offered colonoscopy [2]. Sporadic duodenal adenomas are found in only 0.3% of upper GI endoscopies performed, usually for other reasons [3]. The peak incidence of duodenal adenoma is between 6th and 8th decades of life.



[Table/Fig-2]: Microscopy (Tubular structures lined by dysplastic cells x100 HE)

Large duodenal adenomas may manifest themselves through dyspeptic complaints or bleeding into the upper gastrointestinal tract. Treatment of duodenal adenomas depends on their location,size, and degree of dysplasia.It is interesting that 12% of adenomas were diagnosed only histologically and this underlines the importance of multiple random biopsies in patients without visible polyps [4]. Size, rapid growth, polyp induration or consistently severe dysplasia or villous change suggests that intervention is necessary [5].

Polyp removal by duodenotomy consisting of submucosal infiltration and local excision of all polyps is not recommended, because a recent study has shown recurrence in all patients treated by this technique within a short time. To summarise, the only curative treatment appears to be a proximal pancreatic oduodenotomy. Such an operation has considerable potential morbidity and mortality which makes the indication for and the timing of surgery extremely difficult. In addition to standard surgical resection, the literature describes other options of endoscopic therapy like polypectomy,mucosectomy as well as argon plasma coagulation (APC) – that all show good results with few complications [6].

Techniques of endoscopic removal of duodenal adenomas are generally similar to those of colonic polyps, particularly those of right colon because of the thinness of the duodenal wall. Adjuvant ablative therapies such as the use of APC or electrocoagulation may be used to destroy residual or recurrent adenomatous tissue not removed during attempts at primary snare resection [7].

Complications after endoscopic resection of duodenal adenomas are similar in nature to complications of colonoscopic polypectomy and include perforation, bleeding and complications related to sedation. In our case, we did not encounter any procedure related complications which was confirmed by reassessment EGD and abdominal imaging.

It is recommended that all patients who have undergone endoscopic resection of duodenal adenomas be considered for surveillance endoscopy for the detection and treatment of recurrence [8]. Abbass et al., found a recurrence rate of 37% after a mean follow-up of 26 months. Annual endoscopic follow-up for the first two years after complete polyp removal was proposed [9]. In our case there was 24 month follow-up performed every three months which did not reveal features of recurrence.

CONCLUSION

Isolated duodenal polyps though rare, can occur sporadically. Endoscopic polypectomy is one of the accepted treatment modality with good outcome. However, there is no optimal consensus regarding treatment modalities which keep the clinicians in dilemma. Since the aggressive behaviour of duodenal adenomas is variable, frequent and long term endoscopic surveillance is mandated.

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