

Colonic Adenocarcinoma With Dieulafoy's Lesion: An Unusual Association

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Citation

S J Appukutty, C Gatzen, N Mungalsingh. *Colonic Adenocarcinoma With Dieulafoy's Lesion: An Unusual Association*. The Internet Journal of Pathology. 2014 Volume 16 Number 1.

Abstract

Dieulafoy's lesion was first described in the stomach but there has been an increasing frequency of similar lesions been described in the oesophagus, small intestine, rectum and anal canal. In this paper, we report a case of moderately differentiated adenocarcinoma with Dieulafoy's lesion of the colon in a 64 year old lady.

INTRODUCTION

Dieulafoy's lesion is an uncommon but important cause of sudden onset catastrophic gastrointestinal bleed, which was initially described and characterised in the stomach. Such findings have now been reported along the entire gastrointestinal tract from oesophagus to anal canal and have also been reported in non-gastrointestinal sites such as bronchus. The haemorrhage is usually intermittent but the amount of blood loss can be significant as it is an arterial bleed. Depending on the location of the lesion, the patient may present with hematemesis, melena, hematochezia or hemoptysis.

CASE REPORT

A 64 year old lady following a routine bowel screening was diagnosed with moderately differentiated adenocarcinoma of the splenic flexure of the colon. There were three tubular adenoma with low grade dysplasia noted in the transverse and sigmoid colon. On endoscopy, an early flat cancer was identified that could not be raised with submucosal saline injection (Fig. 1). A peculiar feature was the presence of serpiginous vessels "snaking" through the entire colonic submucosa (Fig. 2)

Figure 1

Endoscopic view of a flat tumour (black arrow) and the adjoining Dieulafoy's lesion (blue arrow).

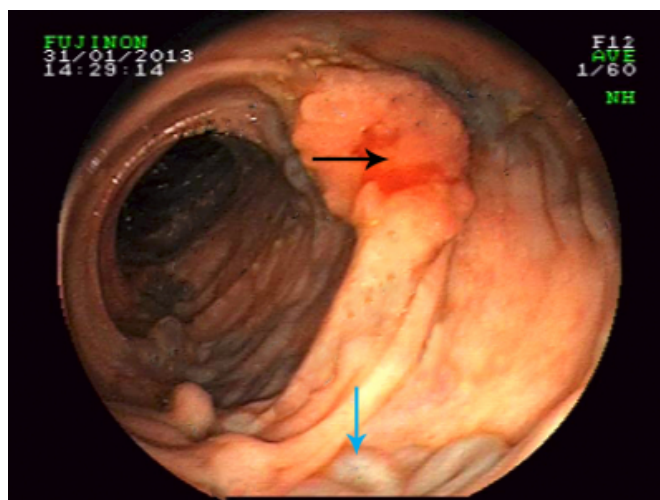
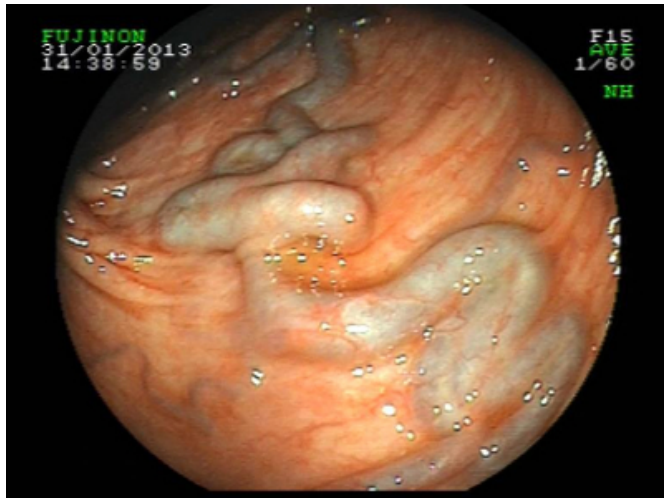


Figure 2

Endoscopic view of serpiginous vessels "snaking" through the entire colonic submucosa.

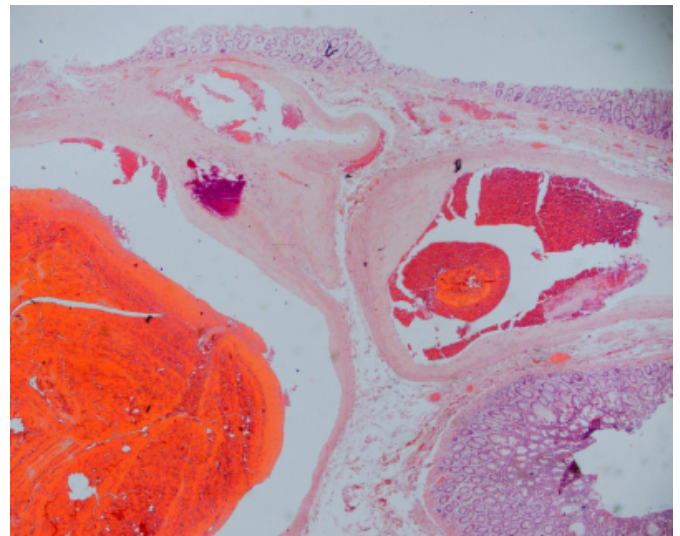


The gross examination of the right hemicolectomy specimen revealed a 19 x 16 x 6mm flat tumour, which was located on the posterior-lateral wall of the splenic flexure of the colon. The tumour was confined to the colonic wall and the serosal surface appeared normal.

The histopathological examination revealed a moderately differentiated colonic adenocarcinoma which invaded into but not through the muscularis propria. Metastatic adenocarcinoma (pT2 N1 Mx) was identified in two of the 16 lymph nodes examined. The apical node was free of tumour. Muscularis mucosa and submucosal areas adjacent to the tumour showed abnormally large thick-walled arteries, dilated arterialized veins and vascular spaces of indeterminate origin. (Fig.3)

Figure 3

Low power image, illustrating a large submucosal abnormally superficial artery. (H&E, original magnification x20).



DISCUSSION

Dieulafoy's disease was first described in French literature by Gallard in 1884 and was named so by Dieulafoy in 1898. In 1962, Voth¹ postulated that the artery fails to taper as it reaches the mucosa but is otherwise normal and put the theory of calibre persistent artery. Miko and Thomazy² supported the theory by measurements of diameter of mucosal and submucosal arteries. It is interpreted as a congenital abnormality with no evidence of vasculitis, atherosclerosis or aneurysm formation.

A similar association of colonic adenocarcinoma with Dieulafoy's have not been reported in English literature to date. Even though this association did not change the management, it does underscore the ubiquitous nature of Dieulafoy's lesion. However, there have been case reports of early gastric cancer with Dieulafoy's by O Leone³, Kishikawa⁴, Taketsuka⁵ and S Gurzu⁶. In some cases Dieulafoy's lesion can be the presenting symptom, which can facilitate the cancer diagnosis in early stages. In our case, both the carcinoma and Dieulafoy's lesion were incidental findings on routine bowel cancer screening.

To diagnose a Dieulafoy's lesion the endoscopic visual criteria must be met, which include (i) Active arterial spurting or oozing from a small (<3mm) defect in the mucosa, (ii) visualization of a vessel protruding from a slight defect or normal mucosa, and/or (iii) a fresh blood clot adherent to a defect of normal mucosa.^{7,8,9} In our case visualisation of protruding vessel throughout the colonic

mucosa with no mucosal defect and the normal surrounding mucosa raised the possibility of Dieulafoy's lesion which was subsequently confirmed by the histological examination.

Dieulafoy's lesion is an under diagnosed rather than a rare entity of life threatening gastrointestinal haemorrhage. Therapeutic endoscopy is the treatment of choice in most cases with only some cases requiring open surgical exploration. Due to the advent of endoscopy and the increased detection rate of this lesion, there has been a decrease in mortality rates from 80% to 8.6%.^{8 10 11}

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