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Cecal Ganglioneuromatous Polyp-A Rare Case

ABSTRACT

Background: Ganglioneuromas (GNs) are hamartomas that are rarely found in the colon. Intestinal GNs are characterized by an overgrowth of ganglion cells, nerve fibers, and supporting cells. They are slow-growing and benign. **Case Description:** A 20-year-old female presented with complaints of abdominal pain for 1 year, with exacerbation of pain and loose stools for 1 week. Colonoscopy showed multiple small superficial polyps in the ascending colon and a large polyp in the cecum. A cecal polypectomy was done and sent for histopathological examination. The final histopathological diagnosis was a ganglioneuromatous polyp of cecum. **Conclusion:** The cecal polyp was detected on colonoscopy and histologically diagnosed as a GN. As GNs are associated with systemic and familial diseases, further screening and follow-up were recommended.

Key words: Cecum, Ganglioneuromatous polyp, Hamartomas

INTRODUCTION

Ganglioneuromas (GNs) are benign hamartomas that are rarely found in the colon. Polypoid GNs, ganglioneuromatous polyposis, and diffuse ganglioneuromatosis are the three kinds of intestinal GNs.[1] They can only be distinguished from other polyps by histological evaluation. Colonic GNs can be asymptomatic or can cause non-specific symptoms such as abdominal pain, bleeding, or change in bowel habits. Due to the rarity of this lesion, the incidence of colonic GN is not known. A few cases have been reported in medical literature and most of them report a benign clinical outcome; however, there are few reports of intestinal ganglioneuromatosis coexisting with colorectal adenocarcinoma.

A CASE REPORT

A 20-year-old female presented with complaints of abdominal pain for 1 year with exacerbation of pain and loose stools for the past 1 week. She had no history of perrectal bleeding or any other comorbidities. There was no family history of colorectal adenocarcinoma, FAP, MEN IIb, neurofibromatosis Type I, or Cowden syndrome. On examination, vitals were stable, and routine labs including complete blood count, comprehensive metabolic panel, and coagulation profile were normal. Colonoscopy revealed multiple small superficial polyps in the ascending colon and a large polyp in the cecum. Cecal polypectomy was done and sent for histopathological examination.

The polyp was measured 1 × 0.7 × 0.5 cm. Microscopy revealed a hamartomatous nodular collection of ganglion cells, nerve fibers, and stromal cells in the lamina propria with unremarkable overlying epithelium (Figure 1). A final diagnosis of cecal ganglioneuromatous polyp was offered.

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DISCUSSION

GNs are hamartomatous tumors frequently found in the head, neck, or adrenal glands. Gastrointestinal tract is a rare site for GNs and they develop from undifferentiated neural crest cells.[2]

GNs in the gastrointestinal tract are categorized into polypoid GNs, ganglioneuromatous polyposis, and diffuse ganglioneuromatosis based on their appearance.[1] The only way to definitively diagnose a GNs is through a histopathological examination. Histologically, ganglion cells are seen mixed with nerve fibers and spindle cells. Although the histology is specific, the diagnosis can be confirmed by immunohistochemical stain. The ganglion cells are immunoreactive for NSE and S100.

Treatment of ganglioneuromatous polyps depends on multiple factors such as size, location, and type of GN. Polypoid GN is usually small, and sessile, and therefore, treatment involves endoscopic resection through hot biopsy forceps.[3]

In ganglioneuromatous polyposis where typically large polyps are seen, and in diffuse ganglioneuromatosis, the

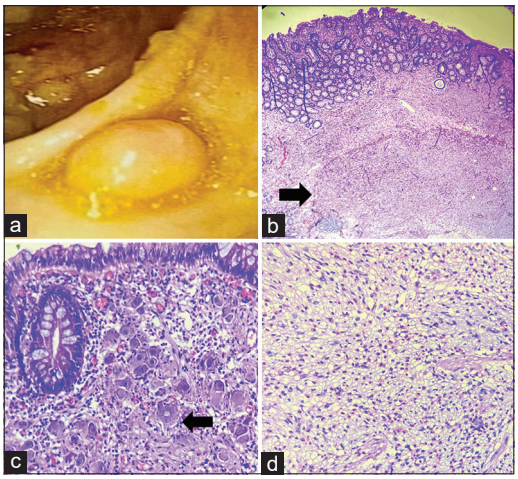

Figure 1: (a) Endoscopic image of polyp in the cecum, (b) H&E stain section at x40 magnification showing polypoidal cecal mucosa with unremarkable epithelium and core of polyp(black arrow) formed by spindle cells, (c) H&E stain section at x400 magnification showing ganglion cells (black arrow) in lamina propria and overlying unremarkable cecal epithelium, (d) H&E stain section at x400 magnification showing spindle cells in lamina propria

treatment of choice is surgical resection of the involved part. Moreover, as GNs are associated with genetic syndromes, screening and testing for the same is recommended.

CONCLUSION

In summary, we present the case of a young female presenting with abdominal pain and passage of loose stools. A colonoscopy revealed multiple small polyps in the colon and a large cecal polyp, which was diagnosed as ganglioneuromatous polyp after histopathological evaluation. As GNs are associated with familial and syndromic disorders, screening and long-term follow-up were suggested.

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