Jejunal Tubulovillous Adenomas

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Jejunal tubulovillous adenomas are a rare entity among the benign small bowel tumors. Usually they are found at the duodenum, ileum and jejunum respectively. They are for the most part asymptomatic. We present a case of jejunal tubulovillous adenomas with abdominal pain. The investigations include a plain film x-ray and computed tomography (CT) of the whole abdomen. These revealed a tumor located at the jejunum. The patient underwent an exploratory laparotomy and a segmental small bowel resection was performed. The procedure was uneventful. The pathological finding showed a tubulovillous adenomas. No malignant change was observed.

Case Report

A 74-year-old man presented with a history of abdominal pain associated with vomiting on and off for six days. Three years before, a colonoscopic examination had been performed and a benign polyp was removed. He had recently experienced weight loss of 5 pounds (lbs). The physical examination revealed a mildly distended abdomen, no mass was palpable. The rectal examination showed an empty ampulla. The laboratory investigations' results were within normal ranges. The plain abdomen supine position (Figure 1) shows moderate dilated small bowel with multi air and fluid levels, with no gas in the colon detected. The findings are consistent with mechanical small bowel obstruction.

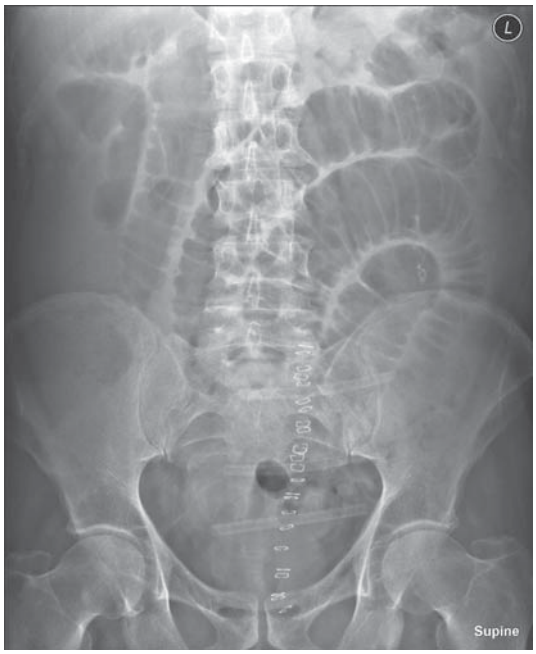

Figure 1: *The plain abdomen supine position shows moderate dilated small bowel with multi air and fluid levels, with no gas in the colon detected.*

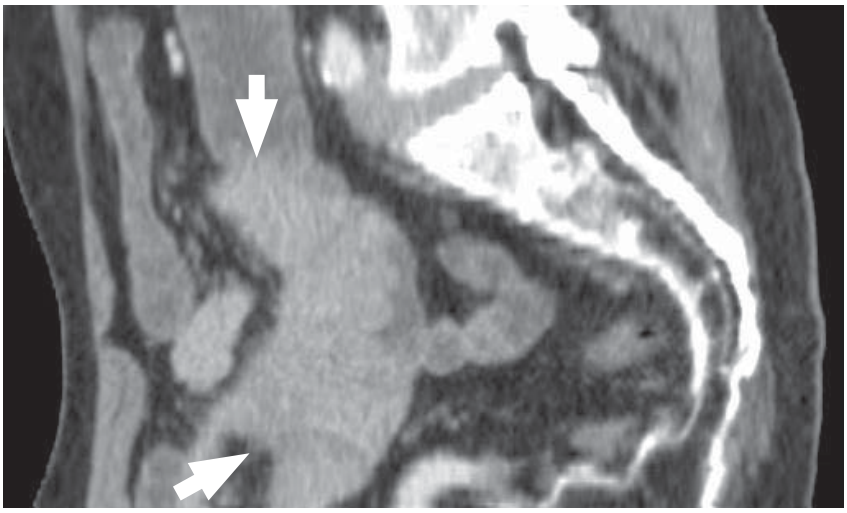

Figure 2: *The CT of the whole abdomen with contrast enhancement, sagittal section shows an intestinal mass at wall of jejunum (see arrows) with proximal jejunal dilatation. There is no evidence of regional node enlargement.*

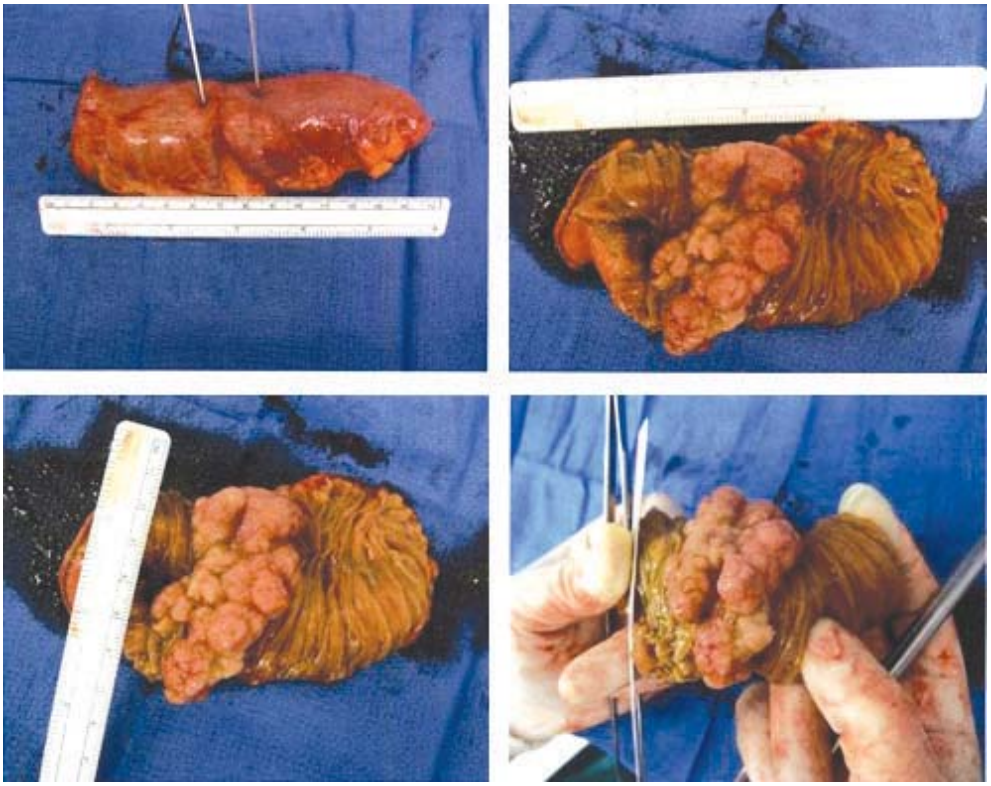

Figure 3: *Shows small bowel obstruction at proximal jejunal due to tumor mass 7 cm in length.*

The CT of the whole abdomen with contrast enhancement, sagittal section (Figure 2) shows an intestinal mass at the wall of the jejunum (see arrow) with proximal jejunal dilatation. There is no evidence of regional node enlargement. Jejunal tumors include adenoma, with or without malignant change, gastrointestinal stomach tumor (GIST), hemangioma or lymphoma.

The patient underwent an exploratory laparotomy. The operative findings (Figure 3A-D) showed an exophytic mass arising from mid jejunal wall, measuring 7 cm in length. The jejunal serosa is normal. There was no evidence of regional nodes enlargement. A segmental jejunal resection was performed. The specimen showed a tubulovillous adenoma measuring 7x3 cm. The microscopic examination (Figure 4A-B) revealed a benign tubulovillous adenoma with focal high grade dysplasia; no malignancy was detected.

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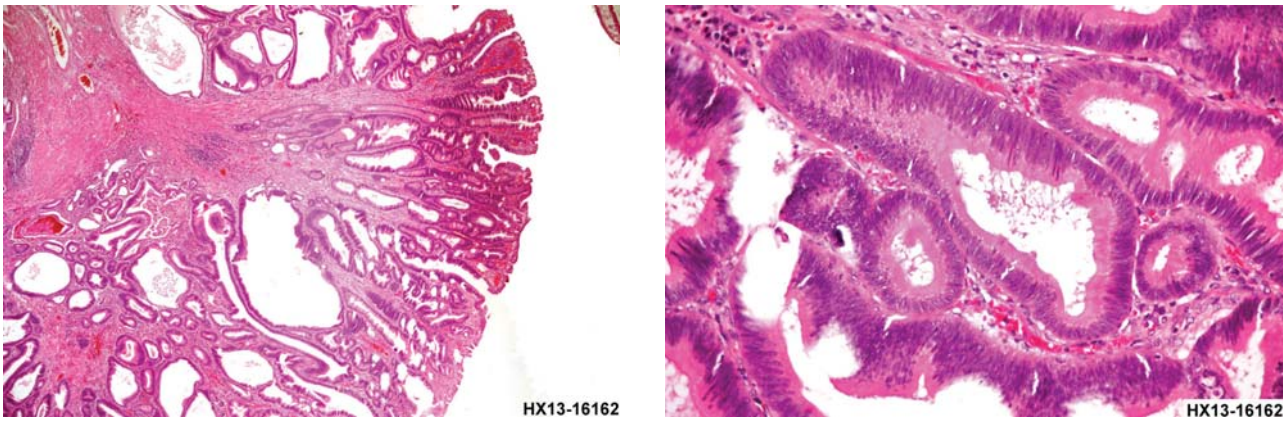

Figure 4A-B: *Microscopic examination shows segments of the jejunum. It reveals a tubulovillous adenoma with focal high-grade dysplasia (villous component, about 40%). There is no evidence of invasive carcinoma. Both resected margins are free of the tumor.*

Discussion

There are three types of small bowel adenomas: true adenomas, tubulovillous adenomas and Brunner gland adenomas. True and tubulovillous adenomas are thought to behave like colorectal adenomas which are found at a precancerous stage. The early stage is asymptomatic. When the tumor is more than 5cm enlarged, it is very likely to present malignant change[2] but the Brunner gland adenomas are benign tumors in length. This is found only at the duodenum. The symptoms are similar to peptic ulcer disease, with no malignant change. The treatment of choice is segmental small bowel resection. If true or tubulovillous adenomas with malignant changes occur, an extensive bowel and regional node resection are recommended. Furthermore, biomarkers by molecular proliferating (MP)[3], should be identified using a combination of techniques including next generation sequencing (NGS), fluorescence in situ hybridization (FISH), chromogenic in situ hybridization (CISH), immunohistochemistry (IHC) and polymerase chain reaction (PCR). The deoxyribonucleic acid (DNA) coding sequence can be referred to once the biomarkers have been identified. This will contribute to detecting progressive cancer or to alter the choice of anti-cancer therapy and/or target treatment more effectively. It potentially improves overall progression-free survival (PFS) rates and improves quality of life[4] over an unidentified MP.

Conclusion

This presentation is a rare case of jejunal tubulovillous adenomas with abdominal pain. The investigations revealed a small bowel obstruction: a jejunum tumor. The patient underwent a segmental jejunal resection and recovered fully. The procedure was uneventful.

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