Malignant Presentation of Benign Tumour of the Rectum

Rektumun Benign Tümörünün Malign Görüntüsü

Sanjeev SANDRASECA, Sindhu KARPAYAH, Normazirah AZIZAN,
Muhammad Ash-Shafihawi ADZNA, Firdaus HAYATI, Rohamini SIBIN

eFaculty of Medicine and Health Sciences, Universiti Malaysia Sabah, Department of Surgery, Kota Kinabalu, Sabah, MALAYSIA
dQueen Elizabeth Hospital, Ministry of Health Malaysia, Department of Surgery, Kota Kinabalu, Sabah, MALAYSIA
bShah Alam Hospital, Ministry of Health Malaysia, Department of Anesthesia and Intensive Care, Shah Alam, Selangor, MALAYSIA
aSelayang Hospital, Ministry of Health Malaysia, Department of Surgery, Batu Caves, Selangor, MALAYSIA

ABSTRACT Rectal schwannomas are rare mesenchymal tumour of the gastrointestinal tract. They are scarcely identified in the low rectum as compared to the proximal tract. If present, huge tumour tends to be symptomatic leading to obstruction, bleeding, and tenesmus. We highlight a 74-year-old man with malignant presentations mimicking low rectal cancer. Colonoscopy revealed a huge pedunculated polyp measuring 10 x 8 cm with a diagnosis of benign tumour of schwannoma upon punch biopsy. Transanal excision was made after failure of endoscopic resection. Microscopic evaluation of the tumour showed a benign nerve sheath tumour of schwannoma supported by positive S100 protein expression. His recovery was excellent, hence he was discharged on the following day. Keywords: Schwanoma; rectum; colonoscopy


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Schwannoma is an abnormal growth that originates from Schwann cells, which originally form the neural sheath and encompass the nerve of myenteric plexus. Review of literature has suggested that gastrointestinal schwannoma accounts for 2-8% of all mesenchymal tumours frequently found in stomach and small intestine, while its location in colon and rectum is scarce.1 Rectal schwannomas are exceptional with only a few cases have been reported.2 Mostly are asymptomatic and only discovered dur-
ing screening endoscopy or incidentally during abdominal imaging. However, a huge tumour size tends to cause symptoms such as obstruction, bleeding, and tenesmus. The diagnosis is confirmed by morphology supported by immunohistochemical panel of S100 protein. Excision with a clear margin is mandatory due to their tendency to recur locally or become malignant if it’s left untreated. We describe a case of benign tumour of rectal schwannoma in a 74-year-old male, who presented with alarming symptoms masquerading as rectal carcinoma, which was successfully treated by transanal excision of the tumour.

CASE REPORT

A 74-year-old male was referred from a district hospital for per rectal bleeding and tenesmus with a palpable mass on rectal examination. The mass was felt 4 cm from the anal verge which intrigued us for further management. Despite lacking family history of malignancy, he presented with altered bowel habits, tenesmus, mucus discharge and per rectal bleeding for 3 months. Colonoscopy revealed a malignant looking pedunculated polyp 4 cm from the anal verge and the stalk origin was 8 cm from the anal verge. A punch biopsy was consistent with benign tumour of schwannoma. A traditional colonoscopic snaring of the polyp was unsuccessful. He then underwent a transanal excision of the rectal polyp. Intraoperative finding showed a large 10x8 cm anal polyp, hard in consistency with stalk 10 cm from the anal verge.

An excision was made at the stalk and it was sent as a whole for histopathological examination. Macroscopic appearance revealed a massive rounded mass measuring 10 x 10 cm with the smooth mucosal surface (Figure 1). The microscopic view showed Antoni A and Antoni B areas of spindle-shaped cells with presence of Verocay bodies, supported by positive S100 protein and vimentin (Figure 2). They were negative for CD34, CD117, desmin and actin. There was no proper capsule identified as the resected specimen was ulcerated. However, histologically the tumour was well defined and non-infiltrative. There was no evidence of malignant transformation. He recovered well postoperatively and was discharged home the following day. The final histopathological report was correlative to the preoperative diagnosis which was a benign tumour of schwannoma of the rectum.

DISCUSSION

Schwannomas are mostly benign (90%) and often arise in the head and neck (25-40%) but not in the retroperitoneum, colon and rectum (1%). Although rare, it should be considered to be the differential diagnoses of slow-growing tumours in anal region such as lipomas, leiomyosarcomas, neurofibromas, ganglioneuromas, paragangliomas, granular cell tumours, and glomus tumours. Gastrointestinal schwannomas occur slightly more in female patients (almost 60%) with a mean age of 61.5 years. They can appear as a submucosal lesion, mucosal mass or an even pedunculated polyp as in our case.

Despite having a benign histology, a huge tumour size in the anal region can be symptomatic masquerading as features of a malignant tumour. The patient can manifest false alarming but yet crucial presentations namely per rectal bleeding (from tumour ulceration), tenesmus and mucus discharge as well as colonic obstruction. Majority of the presenting complaints from our patient mimic a red alert of low rectal cancer, in which an urgent intervention provides a meaningful outcome. However, not every alarming symptom is proven to be menacing. A preoperative clinical diagnosis is important hence biopsy of tumour and histopathological examination plays a pivotal role in surgical approach for a patient with tumour at the anal region. The findings of Antoni A and Antoni B areas of spindle-shaped cells with the presence of Verocay bodies are pathognomonic of schwannoma. Since they are neurogenic tumours,
they are usually positive for S100 protein and vimentin while negative for desmin, keratin, glial fibrillary acidic protein, CD34, EMA, smooth muscle and muscle-specific actin.\(^5\)

Among the differential diagnoses that might be considered in the case of schwannoma are neurofibromatosis, schwannomatosis and melanocytic tumours. The rectal polyp was the only mass that was identified. There were no other symptoms and signs of neurofibromatosis type 1, neurofibromatosis type 2 or schwannomatosis noticed.\(^6\) In this case, there were no features of melanocytic tumours clinically, grossly and microscopically as the resected specimen showed a typical histological feature of schwannoma.

Since this is proven to be rectal schwannoma, a decision for surgical excision was made. In general, surgical approach in rectal tumour depends on the size, location and histopathological pattern of the tumour.\(^7\) Endoscopic and minimally invasive approaches are still proven to be beneficial. In our case, transanal excision of the rectal polyp was the best approach in view of the immensity of the tumour.

In conclusion, schwannomas of the gastrointestinal tract are rare especially in the rectum. Preoperative histological diagnosis is paramount, especially when dealing with tumour mimicking adenocarcinoma. The definitive diagnosis is based on classical histology features, assisted by immunohistochemistry of S100 protein. Surgical resection is the mainstay of treatment notably concerning with local complication caused by the huge bulk of tumour.

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Authorship Contributions

Idea/Concept: Sanjeev Sandrasecra, Sindhu Karpayah, Firdaus Hayati; Control/Supervision: Rohamini Sibin; Literature Review: Nornazirah Azizan, Muhammad Ash-Shafhawi Adznan; Writing the Article: Sanjeev Sandrasecra; Critical Review: Firdaus Hayati, Rohamini Sibin; Materials: Nornazirah Azizan, Firdaus Hayati; Other Final Review: Firdaus Hayati.

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