



Surgery

GASTRIC SCHWANNOMA PRESENTING AS A RIGHT ILIAC FOSSA LUMP- A CASE REPORT

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KEYWORDS :

Schwannomas, also known as neurinomas, are tumors originating from any nerve that has a Schwann cell sheath¹. Schwannomas are most commonly found in the cranial vault, involving the myelin forming cells of the 8th cranial nerve, in a condition called vestibular neuroma¹⁰. These neoplasms are rare among the mesenchymal tumors of gastrointestinal tract with the most common site being the stomach representing 0.2 % of all gastric tumors. These tumors are usually benign, slow growing and asymptomatic, but in some cases bleeding, epigastric pain or a palpable mass may occur. The pre-operative diagnosis via endoscopy is a challenging issue due to the difficulty of differentiation from other submucosal tumours.

Case Report

A 47 year old female presented to physician with complains of pain abdomen since 4 months and one day history of loose stools. On clinical evaluation physician found a mass in right iliac fossa and suggested ultrasonography to rule out any appendicular pathology.

Ultrasonography suggested 41x32 mm size hypoechoic lesion with area of calcification in it along bowel in right iliac fossa. Patient was referred to surgery department for further evaluation. There was no history of weight loss or anorexia.



Figure 1: Endoscopic view of submucosal well-demarcated lesion along greater curvature of stomach with central ulceration.



Figure2-ultrasonography showing mass near caecum.

Her blood investigations revealed anaemia (haemoglobin: 7.8 g/dl) and rest of the parameters were within normal range. The contrast-enhanced CT of abdomen & pelvis showed overdistended and vertical J-shaped stomach with minimally enhancing soft tissue density oval lesion of size 45x38 mm along the greater curvature of stomach in distal body region suggestive of mesenchymal tumour/gastrointestinal stromal tumour and minimal bowel wall thickening in pylorus & gastro-doudenal junction.

Gastroscopy revealed a sessile growth along the greater curvature of stomach with central ulceration and surface irregularity. Decision to operate was made and patient under went Laparoscopic Partial Gastrectomy followed by gastro-jejunosotomy with jejuno-jejunosotomy. Surgery was uneventful with meticulous dissection and gastric mobilization.

Macroscopic examination of cut opened stomach showed light pinkish, solid well circumscribed transmural subserosal mass measuring 2x2.5x2.5 cm with centrally ulcerated mucosa (ulcer size 1x1x0.5) and intact serosa, located along the greater curvature of stomach 5 cm from pyloric end.



Figure3- Macroscopic view of Gastric Schwannoma with central ulceration.

Microscopic examination spindle cell neoplasm. The neoplastic cells had cigar-shaped nuclei without nucleoli and eosinophilic cytoplasm. Few spindle cells had large bizarre nuclei. Occasional mitotic figures were notred (less than 5/50 hpf).

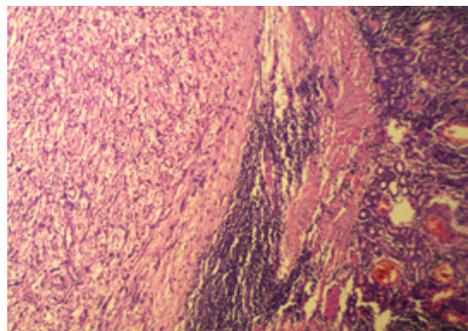


Figure4- Microscopic view showing tumour and overlying mucosa

Immunohistochemically tumor was S100 protein & SMA (smooth muscle actin) protein positive and CD117 & DOG1 negative suggesting nerve sheath tumor-Schwannoma.

Post operatively patient was started orally on day 3 and discharged on day 12 without any complications.

Discussion

Schwannomas are spindle cell mesenchymal tumors, which originate from any nerve that has a Schwann cell sheath¹. In the GIT, gastrointestinal stromal tumours constitute the largest group of mesenchymal tumours, whereas Schwannomas are rare and are mostly found in older adults (mean age 58 yrs) showing a slight female predilection². GI schwannomas are usually non-encapsulated but well demarcated⁸. Most of them are uninodular, but sometimes they present with a multifocal character. Malignant Schwannomas are very rare, as only 8 cases have been reported in literature till now⁹.

Stomach being the most common site of origin in the GIT, schwannomas represent 6.3% of gastric mesenchymal tumours and only 0.2% of all gastric tumours. They are usually located in the middle third of the stomach along the lesser curvature⁷. The majority of the tumours are usually encased by intact mucosa and principally involve the submucosa and muscularis propria, without invading adjacent structures. About half of them show central ulceration. Schwannomas of the digestive tract are S100 protein and vimentin positive, they never express CD 117 antigen and are usually negative for CD 34, in contrast to GIST⁵.

Schwannomas generally present asymptotically; however it may present with abdominal discomfort and pain or digestive symptoms as well as a palpable mass when tumour is large and exophytic as in our case. Dysphagia or obstipation are possible symptoms when site of origin is esophagus or rectum. In case of deep ulceration bleeding may also be present. Our patient had palpable mass in right iliac fossa but appendicular pathology was ruled out on CT-abdomen⁶.

CT, MRI, sonography and endoscopy helps us to gain limited information about the tumour. Though Endoscopy helps us to locate the tumour and endoscopic needle biopsy is useful to establish a diagnosis of submucosal tumour but in case of GIST there is theoretical risk of hemorrhage or tumour rupture which is associated with poor prognosis. Having in mind this risk, we did not perform biopsy in this case.

As there is always difficulty in establishing a definite pre-operative diagnosis, surgical resection should be considered as treatment of choice in patients with gastric schwannomas. Size, location and relation of tumour with surrounding organs are important factors in determining the type of operation. At our center we performed Laparoscopic partial gastrectomy using harmonic scalpel. Such cases can be subjected to laparoscopic procedures where there is minimal access to operative field with meticulous dissection & less complications. There is excellent post-operative prognosis⁴ and most patients return to pre-operative state of health⁷.

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