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Case Report

A 45years-Old Man with Gastric Schwannoma

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ABSTRACT:

Gastrointestinal mesenchymal tumors are a group of tumors originated from the mesenchymal stem cells of the gastrointestinal tract, consisting of gastrointestinal stromal tumors (GIST), leiomyomas or leiomyosarcomas or schwannomas. 1 Schwannomas, also known as neurinomas, are tumors originating from any nerve that has a Schwann cell sheath.2 The existence of schwannoma as a primary gastrointestinal tumor based on the positive S-100 stain had been under serious debates until a series of 25 well-documented cases were presented by Daimaru *et al*.3 Gastric schwannomais a very rare gastrointestinal mesenchymal tumor, which represents only 0.2% of all gastric tumors and 4% of all benign gastric neoplasms.4 These tumors are usually benign, slow-growing and asymptomatic, but in some cases bleeding, epigastric pain or a palpable mass may occur.5 The preoperative diagnosis via endoscopy is a challenging issue due to the difficulty of differentiation from other submucosal tumors. When gastrointestinal schwannoma occurs, the most common site is the stomach.6We report a case of a 45years-old man with epigastric pain that diagnosis was established histologically gastric schwannoma after surgery.

CASE PRESENTATION

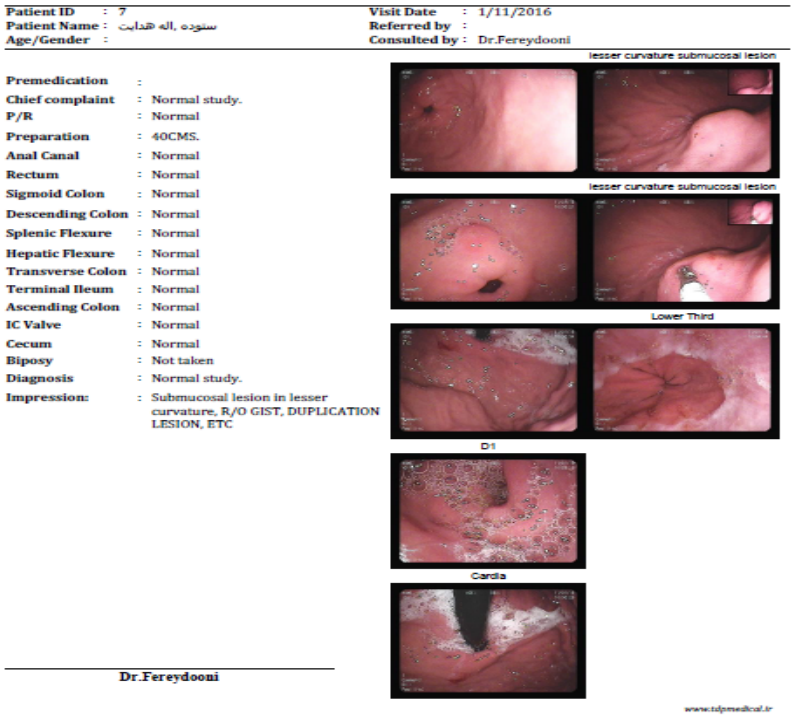
The patient was a 45years-old man that comes in our hospital with on&off episode of epigastric pain since 3years ago. He was suffering from regurgitation and heart burn in this time add give medication therapy with omeprazole, ranitidine and dimethicone but not better with drug. In hospital endoscopic examination show Submucosal lesion 25*20mm with superficial erosion in lesser curvature, patchy erythema and erosion in antrum and prepyloric area. His abdominopelvicct-scan report round lesion measuring 30*27mm in anterior superior wall of stomach. Abdominal sonography report a well difinedhypoecho lesion measuring 24*27mm anteriosuperior to tail of pancreas and not seen other pathologic thing or metastatic lesion.in lab data the patient has hemoglobin=14, total billi=1.2, alphfitoprotein=4.7 amylase=72 and lipase=21.

Surgery was determined to be the best treatment option and the patient underwent a partial gastrectomy withBillroth II and Braun anastomosis.

Macroscopic examination of the stomach determine solid and well circumscribed tumor that measured 5×4×3cm, located between greater and lesser curvature.

Immunohistochemically the tumor was S-100 protein positive but CD 117, CD 34, CD56, DOG1, KI 67, SMA and desmin werenegative.

The postoperative period was uneventful and the patientwas discharged on the 6th postoperative day in goodcondition. The 6 mounth-follow up was unremarkable.


Patient ID : 7
Patient Name : ستوده ,الله هدایت
Age/Gender :
Visit Date : 1/11/2016
Referred by :
Consulted by : Dr.Fereydooni

Premedication :
Chief complaint : Normal study.
P/R : Normal
Preparation : 40CMS.
Anal Canal : Normal
Rectum : Normal
Sigmoid Colon : Normal
Descending Colon : Normal
Splenic Flexure : Normal
Hepatic Flexure : Normal
Transverse Colon : Normal
Terminal Ileum : Normal
Ascending Colon : Normal
IC Valve : Normal
Cecum : Normal
Biposy : Not taken
Diagnosis : Normal study.
Impression: : Submucosal lesion in lesser curvature, R/O GIST, DUPLICATION LESION, ETC

Dr.Fereydooni

lesser curvature submucosal lesion
lesser curvature submucosal lesion
Lower Third
D1
Cardia

DISCUSSION

Gastric mesenchymal tumors can be divided into gastrointestinal stromal tumor, leiomyoma or leiomyosarcoma, or schwannoma. Their cellular structures are of spindle shape and look similar under light microscopic examinations.2 gastrointestinalstromal tumours (GISTs) constitute the largest group of mesenchymal tumours, whereas schwannomas are rareand are mostly found in older adults (mean age 58 years) showing a slight female predilection.1,8 schwannomasis determined by pathological examination, it maybe helpful to gain limited information about the tumor through gastrointestinal endoscopy, CT, magnetic resonance imaging (MRI), sonography, EUS and upper gastrointestinalbarium study. Endoscopy helps to define theexact location of the tumor. Though endoscopic needle biopsy is useful to establish a definite diagnosis of a submucosaltumor, in case of GIST there is the theoretical risk of hemorrhage or tumor rupture which is associated with poor prognosis.7Positive desmin and muscle actin stains indicate leiomyoma or leiomyosarcoma, positive CD34 and CD117 indicate GIST and positive S-100 indicates schwannoma.

In this case, the tumor revealed spindle cells, strongly positive for S-100 stain and CD56 and negativefor desmin, DOG1, SMA, CD34 and CD117, which indicated the diagnosis of schwannoma.

Gastric schwannomas arise from the nerve sheath of Auerbach plexus or, less commonly, Meissner plexus. They are slowly-growing encapsulated tumors composed of Schwann cells in a collagenous matrix. As the tumor enlarges, it displaces the nerve to the periphery of the tumor, preserving neural function.9 They are often asymptomatic and can be discovered incidentally at laparotomy or radiographically. The most common presenting symptom is an episode of uppergastrointestinal bleeding. In Burneton review series,most patients presented with bleeding, followed by abdominal pain.10 When patients suffer from upper gastrointestinal bleeding, endoscopic examination is the procedure of choice for evaluations. It can offer good visualization to the lesions for diagnosis and therapeutic procedures. The typical endoscopic appearance of gastric schwannoma is a round protruding submucosal mass with overlying ulcerated mucosa. Surgical resection, including wedge resection, subtotal resection or near-total resection, is the treatment of choice for gastric schwannoma. Complete resection of the tumor is proper.11 Although the definite diagnosis of gastric schwannoma is usually made in the permanent pathology, the frozen pathology can offer the pictures of spindle cell tumors. Prognosis for patients with solitary

schwannoma of stomach following resection is excellent. Malignant transformation of a solitary lesion is rare only as 8 cases have been reported in the literature till now.12,13

CONCLUSION:

Although GI schwannoma is very rare but new cases with this pathology are presented with consideration distribution between normal population. So further investigation about epidemiologic feather, genetic aspect and predisposing hereditary and environmental risk factor are necessary in future. Despite improvement in endoscopy study biopsy of such a cases has a lot of difficulties and needs comperehensive decision making.

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