Photoclinic

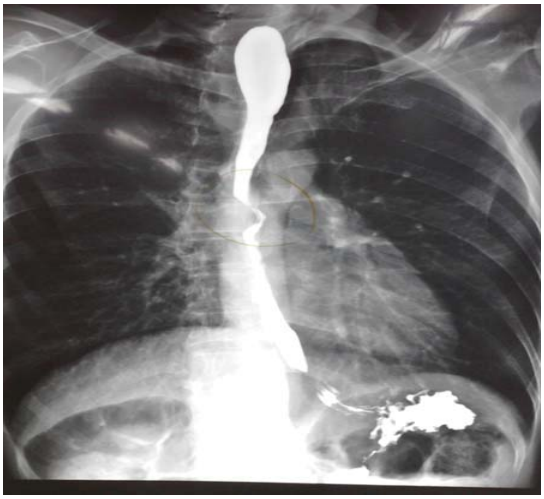

Figure 1. Barium swallow shows narrowing in mid part of the esophagus

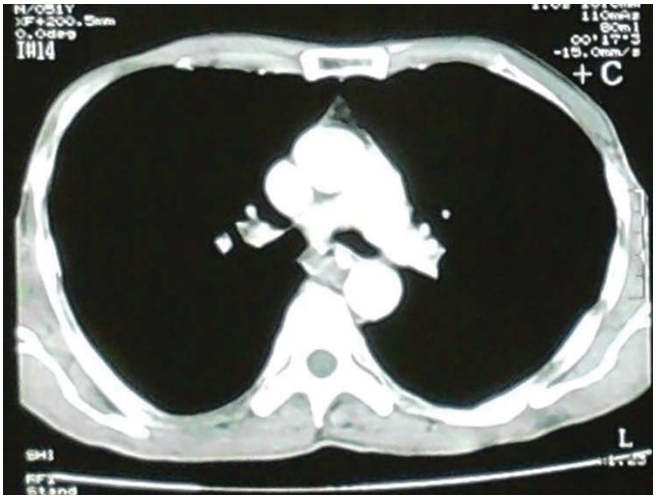

Figure 2. CT scan of the chest shows narrowing of the esophageal lumen

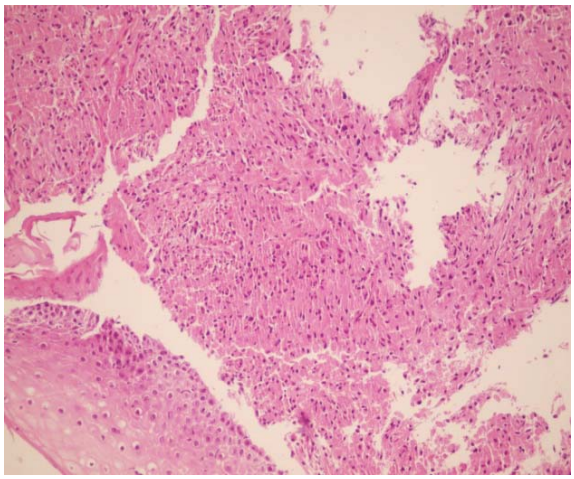

Figure 3. Microscopic sections of the esophageal mass show uniform population of cells with round to oval nuclei and plenty of eosinophilic cytoplasm. No pleomorphism, nuclear atypia, or mitotic activity noted.

Cite this article as: Geramizadeh B, Ali Nowshadi P. Photoclinic. *Arch Iran Med*. 2013; **16(1):** 59 – 60.

A 54-year-old man was referred with chief complaint of progressive dysphagia for three months, in a way that he could ingest just semi- liquid food. No positive history of weight loss was noted. He showed a very good general condition. Physical examination and laboratory findings were unremarkable. Laboratory examinations, consisting of complete blood count and biochemical tests, were normal.

Barium swallow showed a constant narrowing in the mid part of esophagus with asymmetric shouldering and barium hold up, highly suggestive of a mass (Figure 1). Subsequently, spiral chest CT-scan was done which revealed an apparent narrowing in mid part of the esophagus, appeared to be due to vascular impression. No mucosal abnormality in the esophagus was seen (Figure 2).

Endoscopic assay showed a large ulcerated mass, 30 cm away from teeth measuring 5×3×2 cm, with near total occlusion of the esophageal lumen. Endoscopic biopsy was taken for pathologic evaluation (Figure 3).

What is your diagnosis?
See the next page

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Accepted for publication: 25 July 2012

Photoclinic Diagnosis: **Granular cell tumor of the esophagus**

Granular cell tumors (GCT) are relatively infrequent lesions that were initially described by Abrikossoff in 1926. It was formerly known as granular cell myoblastoma and the first description has been in 5 cases in tongue.[1] In 1931 the first case was described in the esophagus by the same author.[2] Most of these neoplasms are usually located in the head and neck region, and only 4% to 6% of GCTs are located in the GI tract.[3]

After the first report of esophageal GCT, until now about 270 cases have been reported worldwide.[3]

The origin of this tumor used to be considered as myogenic, but recent findings have suggested that this tumor is of Schwanian origin.[4] In general there seems to be a female predilection, and it can occur at any age but are most commonly seen in the fifth decade of life.[1] Most esophageal GCTs are found incidentally during endoscopy for other reasons. Although a GCT is usually asymptomatic, when the tumor is larger than 1 cm, it may cause dysphagia.[2]

Endoscopy of these tumors is characterized by a yellowish-white, firm, sessile submucosal mass.[4] Histopathology of the tumor is characteristic, composed of clusters of fusiform to polygonal cells with abundant eosinophilic cytoplasm with indistinct cytoplasmic borders, which are S100 positive (Schwanian origin).

Malignant potential of this tumor is controversial and about 1.5 – 2.7% of these tumors are malignant.[5] Proposed histologic criteria for diagnosis of malignancy are tumor necrosis, tumor cell spindling, large nucleoli, increased mitotic activity, high nuclear to cytoplasmic ratio, and pleomorphism. At least three of the above criteria are necessary for the diagnosis of malignancy.[5]

The treatment option for GCTs is controversial, but the current treatment option is a conservative approach with regular endoscopic follow-up for tumors < 10 mm in diameter without evidence of malignancy, and surgical excision for tumors > 20 mm in diameter, benign GCTs causing symptoms, or when malignancy is suspected. If no malignant changes are present in the removed specimen, additional treatment and follow-up is not necessary.[5]

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