A Case of Pyogenic Granuloma in the Cervical Esophagus Treated by Endoscopic Removal

Endoskopik Olarak Tedavi Edilen Servikal Özofagus Piyojenik Granülom Olgusu

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ABSTRACT Botryomycoma also called pyogenic granuloma (PG), septic granuloma, or lobular capillary hemangioma, that usually occurs in the skin or some mucosal surfaces. PG is very uncommon in the gastrointestinal tract, mainly in the colon, rarely in the esophagus. This is the eighth description of such a pyogenic granuloma occurring in the esophagus. A benign lesion, it is thought to be an exuberant reactive inflammatory and vascular response to travma or other stimuli such as infection. PG of the gastrointestinal tract have been treated using surgical resection or endoscopic snare polypectomy, due to bleeding or a increase in size. We herein report a case of esophageal pyogenic granuloma, which was successfully treated by endoscopic snare polypectomy, with no sign of recurrence at seven months.

Key Words: Pyogenic granuloma; endoscopy; esophagus

ÖZET Piyojenik granüloma (PG), septic granüloma, lobuler kapiller hemanjiom olarak da isimlendirilen botrymikoma; genellikle deri ve bazı mukozal yüzeylerde görülür. PG gastrointestinal sistemde sık görülmez, temel olarak kolonda, nadiren özofagusta görülebilir. Bu olgu özofagusta tanımlanan sekizinci PG olgusudur. PG, travma veya enfeksiyon gibi diğer stimuluslara aşırı inflamatuar veya vasküler yanıt sonucu oluştuğu düşünülen benign bir lezyondur. PG, kanama veya boyut artışı nedenleri ile cerrahi rezeksiyon veya endoskopik snare polipektomi ile tedavi edilebilir. Biz burada, endoskopik snare polipektomi ile başarı ile tedavi edilen, yedi ay sonrasında yapılan kontrolde rekürrens gözlenmeyen özofagus PG olgusunu sunduk.

Anahtar Kelimeler: Pyojenik granülom; endoskopi; özofagus

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Pyogenic granuloma (PG), also called septic granuloma, botryomycoma or granulation tissue type hemangioma, is a polypoid form of lobular capillary hemangioma that usually occurs in the skin or some mucosal surfaces. It is extremely rare in the gastrointestinal (GI) tract and rarely occurs in portions other than the oral cavity. Its preoperative diagnosis is difficult. To our knowledge, although 24 cases of GI pyogenic granuloma have been reported: 6 in the esophagus, 1 in Barrett's esophagus, 4 in the stomach, 1 in the duodenum, 4 in the jejunum, 2 in the ileum, 3 in the sigmoid colon, 1 in the descending colon, 1 in the rectum and 1 at the anus.[2-23]

This is the eighth description of such a pyogenic granuloma occurring in the esophagus. We herein report a case of esophageal pyogenic granuloma, which was successfully treated by endoscopic snare polypectomy.

CASE REPORT

A 56-year-old man underwent upper endoscopy because of epigastric discomfort. The physical examination was unremarkable and laboratory data revealed no abnormalities. Upper endoscopy showed a reddish, sessile, nipple-like protruding lesion of 5 mm diameter on the 32nd cm. of the esophagus. No biopsy was taken from this lesion because of the possible vascular structure with subsequent risk of hemorrhage. Therefore, the lesion was evaluated by colour doppler endoscopic ultrasonography (EUS) and EUS showed the lesion that had no vascular structure.

At the next endoscopy after 8 months, we found that the lesion had grown to 15 x 5 mm in diameter and appeared as a pedunculated polyp with a white coating on the top (Figure 1). Endoscopic snare polypectomy of the polypoid lesion was performed without any complications. The biopsy specimen showed granulation tissue like vascular proliferation, infiltration of inflammatory cells, ulceration, and fibrosis. Histological examination of polypectomy material revealed that the polypoid lesion was composed of capillaries of various sizes proliferating in a vague lobular fashion, with an infiltrated and edematous stroma (Figure 2, 3). On the basis of these findings, the tumor was diagnosed as a pyogenic granuloma. A follow-up endoscopic examination after seven month revealed a hyperemic area on the location of previous lesion and the control biopsy had no evidence of recurrence.

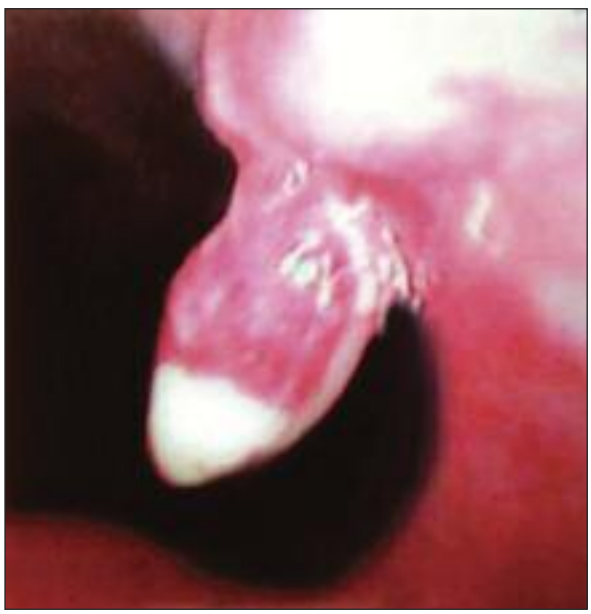

FIGURE 1: Pyogenic granuloma's pedunculated endoscopic view with a white coating on the top.

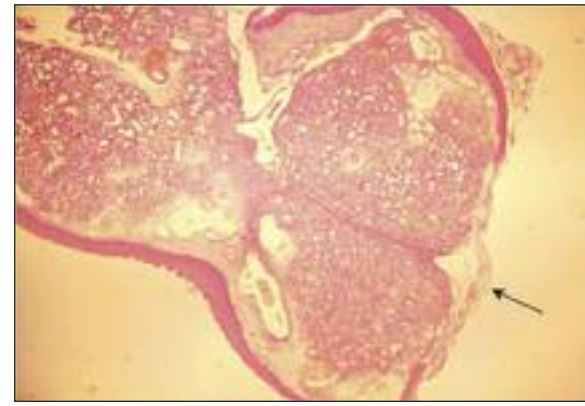

FIGURE 2: Lobular arrangement of small vascular structures covered by squamous epithelium. The epithelium is ulcerated at one area (arrow). HE X40.

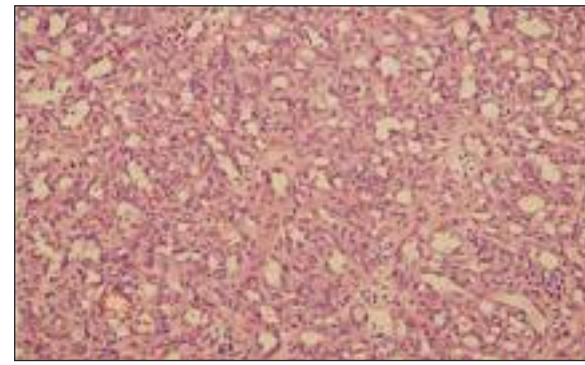

FIGURE 3: Small, arborizing vascular channels lined by plump endothelial cells and filled with erythroctes in a fibrous stroma. Infiltration by inflammatory elements is seen. HE X400.

DISCUSSION

Hemangiomas of the GI tract are relatively rare, accounting for 0.3% of all GI tumors and from 3% to 4% of all tumors in the small intestine. Most he-

mangiomas in the GI tract are of cavernous type, the others being of capillary or mixed capillary cavernous type.[24]

PG or granulation tissue-type hemangioma is a polypoid form of capillary hemangioma which occurs on the skin and mucosal surfaces. The most common locations of PG are gingiva, finger, lips, face and tongue. They resemble granulation tissue microscopically and a history of minor trauma proceeds in one third of the cases. Histologically they are exophytic lesions connected to the skin with stalks. The epithelium overlying the lesion is flattened, atrophic or ulcerated. The lesion is a lobular hemangioma embedded in a fibromyxoid matrix and a larger, often thick muscled wall feeds the surrounding small capillaries in each lobule. Infiltration of inflammatory cells is a common finding which makes the resemblance to granulation tissue more predominant. A brisk mitotic activity of endothelial and stromal cells may be observed.[1]

The occurrence of PG in the GI tract is extremely rare, and only twentyfour such cases have been reported in the literature.[2-20] Gof the GI tract have been treated using surgical resection or endoscopic snare polypectomy or laser photocoagulation in case of bleeding or an increase in size.[5-8,10,11,13,15,16,19,21] In the field of dermatology and oral surgery, PG is a common benign neoplasm, however, it is known to recur frequently after resection. Recurrences of gastrointestinal pyogenic granuloma have not previously been described. In our case, PG had no evidence of recurrence. The aetiopathogenesis of PG remains unclear. It has been considered as a reactive hyperproliferative vascular response to a variety of stimuli rather than being a true hemangioma. As a benign lesion, it is thought to be an exuberant reactive inflammatory and vascular response to trauma or other stimuli such as infection. PG usually bleed easily, like other types of hemangiomas.[11]

The endoscopic or macroscopic features of intestinal PG are distinct and. are usually described as exophytic, protruding, polypoid or pedunculated lesions with or without superficial erosions. The overlying mucosa appears red due to the rich proliferation of blood vessels. Size reportedly ranges from 0.7 cm to as large as 2.5 cm in diameter. Pathologic examination is required for final diagnosis.[11,19]

Differential diagnostic consideration includes inflammatory polyp and other vascular tumors such as bacillary angiomatosis and the angiomatous variant of Kaposi's sarcoma Precise recognition of this distinctive vascular neoplasm in the GI tract is essential to avoid misdiagnosis and inappropriate treatment.[7]

Although extremely rare, pyogenic granuloma as a cause of GI bleeding needs consideration. We believe that endoscopic snare polypectomy is an alternative treatment for the patients at high risk for surgery.

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