

An eleven-month-old girl with a lesion on the auricle

Vefa Kınış, Salih Bakır, Musa Özbay, Ediz Yorgancılar, Uğur Fırat*

Dicle University Medical Faculty, Department of Otolaryngology, Diyarbakır, Turkey

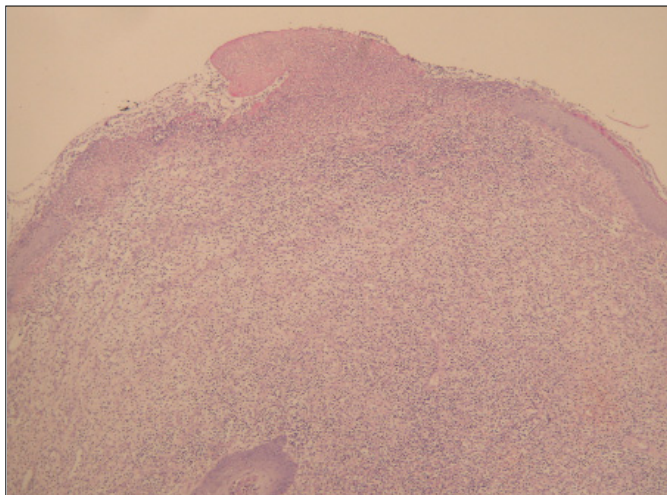
**Dicle University Medical Faculty, Department of Pathology, Diyarbakır, Turkey*

Case

An eleven-month-old girl was referred to our clinic from an outer center because of a mass on the left auricle. The patient's previous medical history was natural. Her laboratory tests were within normal limits. The family was not aware if any trauma occurred to the ear. The mother reported that the mass occurred 10 days ago and grew rapidly and reached this size. On physical examination, a mass with dimensions of approximately 2.5 cm x 2.5 cm located posterior to the left auricle was found. The half-solid, solitary and wide-based mass had a bright red color and bleeding and ulcer foci were present on the surface (Picture 1). Other system findings were normal. The patient was taken to the operation room for the aim of extracting the mass.



Picture 1. Lesion on the auricle



Picture 2. The histopathological appearance of the lesion

Diagnosis: Pyogenic granuloma

The mass was extracted together with a small amount of normal tissue to prevent recurrence under general anesthesia. The extracted red-colored mass with dimension of 2.5x2.5x1.2 cm was a half-solid lesion without a capsule. No stitches were placed on the region where the mass was extracted and the wound was left for secondary healing. No complication was observed during and after the operation and the patient was discharged on the second day after surgery.

On histopathological examination, it was observed that capillary vessels with various dimensions summed together in the granulation tissue in a lobular pattern. The surrounding tissue was edematous and included plenty of inflammatory cells. With these findings a diagnosis of pyogenic granuloma was made histopathologically (Picture 2).

Discussion

Pyogenic granuloma (PG) is also called lobular capillary hemangioma by some authors (1). It is a tumor-like reactive lesion frequently located in the skin. Its frequency is not known exactly (2,3). The term pyogenic granuloma was used by Hartzell (4) in 1904 for the first time. Although it is observed frequently in the head and neck region and oral and nasal cavity, it is found very rarely in the other regions. No other case with a localization in the auricle has been found in the literature.

Pyogenic granuloma is thought to be a reactive lesion occurring as a response to small trauma, local irritation and hormonal factors (3,5). In approximately 1/3 of the cases, a history of trauma is present and the lesion rapidly grows

reaching mostly 2-3 cm in a few weeks. 75% of PG cases occurring in the oral cavity originate from the gingiva (6). It has been reported that PG can originate from the lower lip, tongue, palate, nasal mucosa and nasal cavity and rarely from the outer earway in the head-neck region (3,7). The mutual characteristic of all these areas is potential of exposure to frequent trauma. Clinically, these lesions are observed as pedunculated and wide-based lesions containing red, nodular, granular or ulcerated areas (2,3). They may have a size ranging from a few millimeters to a few centimeters (3).

Histopathologically, they are composed of hyperplastic granulation tissue with marked capillary vessels in a loose connective tissue stroma.

Biopsy should be done in all lesions which are thought to be PG clinically for differential diagnosis with other tumors. In addition, easy bleeding of the lesion because of marked increase in vascularization and presence of cosmetic disorder are also indications for surgery (3). We also preferred surgical treatment in our case both for diagnosis and treatment. No recurrence was observed in the patient in the follow-up period of one year.

There are some points about our case which should be emphasized. Although the family gave no history of trauma related to the baby, we believe that the baby might have damaged her auricle with her fingers, since the lesion reached this size in a short period of 10 days. As we mentioned before, we could not find a case of PG located in the auricle, when we screened the literature in Turkish and in English, though rare localizations of PG are present. No case of PG with a localization in the auricle is present in the series of Giblin et al. (8) including 408 subjects and in another series including 21 subjects from our country.

References

1. Akyol MU, Yalçiner EG, Doğan AL. Pyogenic granuloma (lobular capillary hemangioma) of the tongue. *Int J Pediatr Otorhinolaryngol* 2001;58:239-41.
2. Ramirez K, Bruce G, Carpenter W. Pyogenic granuloma: case report in a 9-year-old girl. *General Dent* 2002;50:280-1.
3. Neville BW, Damm BW, Allen CM, Bouquot JE. Oral and maxillofacial pathology. 2nd edition. W.B. Philadelphia: Saunders co, 2004:437-95.
4. Hartzell MB. Granuloma Pyogenicum. *J Cutan Dis Syph* 1904;22:520-5.
5. Damm DD, Fantasia JE. Elevated and ulcerated nodule of lip. Pyogenic granuloma. *Gen Dent* 2002;50:466-8.
6. Bhaskar SN, Jacoway JR. Pyogenic granuloma-clinical features, incidence, histology and result of treatment: report of 242 cases. *J Oral Surg* 1966;24:391-8.
7. Hsu CH, Chen CH, Wang CH. Bilateral external auditory canal pyogenic granuloma. *Otolaryngol Head Neck Surg* 2008;139:596-7.
8. Giblin AV, Clover AJ, Athanassopoulos A, Budny PG. Pyogenic granuloma—the quest for optimum treatment : audit of treatment of 408 cases. *J Plast Reconstr Aesthet Surg* 2007;60:1030-5.
9. Yenidünya MO, Gürel M. Adına benzemeyen bir patoloji: piyojenik granülom. *Yeni Tıp Dergisi* 2009;26:90-5.