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## A Rare Disease That Causes Facial Nodules in Children: Idiopathic Facial Aseptic Granuloma

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### Dear Editor,

Idiopathic facial aseptic granuloma (IFAG) is a benign but uncommon pediatric skin disorder [1,2]. Here we present a case of 2-year-old girl who showed nodular lesions on the cheek and eyelids.

A 2-year-old girl presented with asymptomatic nodules on the cheek and eyelids. The nodules had appeared approximately four months before the physical examination. The patient's family didn't describe any trauma or insect bite. The patient had a history of cerebral palsy and right hemiparesis. She was receiving physical therapy. In dermatological examination, there were red-violaceous papulonodular lesions on the upper eyelids and on the left cheek (Figure 1). She was afebrile and regional palpable lymphadenopathy wasn't detected. A 3 mm punch biopsy was taken from the lesion on the left cheek. The histological examination revealed a granulomatous dermal infiltrate consisting of lymphocytes, epithelioid histiocytes, neutrophils, sparse plasma cells, foreign body type giant cells and negative results of staining (Gram, EZN, PAS) for detection of microorganisms (Figure 2). Diagnosis of IFAG was made based on clinical and histopathological findings. No treatment was prescribed. In the controls, it was observed that the lesions started to regress.

IFAG is a recently described childhood disease characterized by chronic, painless, red-to-violaceous facial nodules. It occurs in children between 8 months and 13 years of age. It has a characteristic location. In two-thirds of cases, it is located in the

triangle formed by angulus oris, lateral eye canthus and earlobe. The nodule is generally solitary and typically located on the cheeks or eyelids or both. In addition, it resolves spontaneously less than one year, about 11 months [1,2,3]. It can be difficult to distinguish eyelid nodules from chalazion, but the latter is normally found in the tarsal plate [2,4,5].

The etiopathogenesis of this pediatric condition has not yet been determined. It's still unclear. One of the actual hypotheses is that IFAG may be within the spectrum of childhood granulomatous rosacea. The presence of concurrent chalazions which are usually associated with rosacea, development of rosacea lesions in follow-up, detection of lymphohistiocytic perifollicular infiltrate which is typical of granulomatous rosacea, response to antibiotherapy used for rosacea treatment are some of the features suggesting an association with granulomatous rosacea [2,3,6].

The possibility of an infectious etiology seems to be ruled out. Therefore, the disease is considered aseptic. Another hypothesis is that the development of a granulomatous response to an embryonal remnant. Finally, other suggested etiologies include a persistent reaction to an insect bite or traumatic injury [1,2].

The histopathology of this condition is characterised by a chronic granulomatous infiltrate. Therefore, in the histopathological examination, we can see lymphohistiocytic infiltrate, neutrophils and foreign body type giant cells in the dermis. We don't expect to see ghost cells and calcification which is characterized pilomatrixoma [1].



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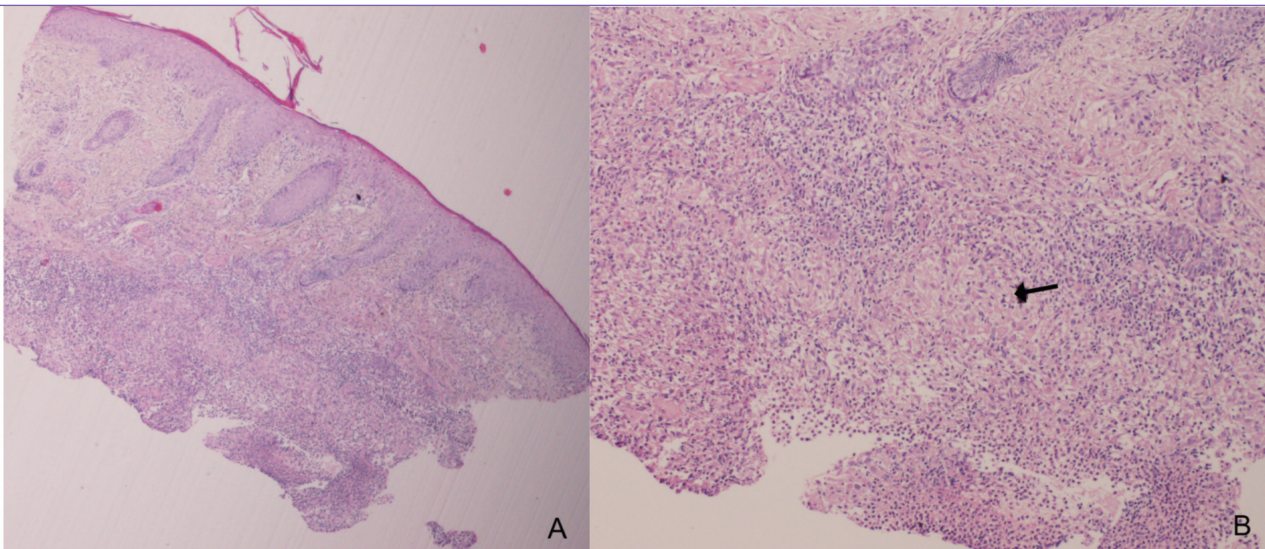
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**Figure 1.** Chalazion on the upper eyelids and solitary nodule on the left cheek (3 mm punch biopsy was taken from the lesion on the left cheek)



**Figure 2.** A) Granulomatous inflammation in the middle dermis, H&Ex40, B) Microgranulomas composed of epithelioid histiocytes and surrounding inflammation rich in lymphocytes, H&Ex100

The differential diagnosis includes other causes of facial nodules in childhood such as benign tumors (pilomatricoma, dermoid cyst, epidermoid cyst, juvenile xanthogranuloma, Spitz nevus, chalazion), localized pyoderma (fungal, bacterial, mycobacterial infections), cutaneous leishmaniasis, pyogenic granuloma, vascular malformations, nodulocystic acne [1,5,7].

Most lesions regress spontaneously. Also, good results have been reported with systemic and topical antibiotics [1,3,5].

Our case presented with chalazion and solitary nodule on the cheek. It contained granulomatous dermal infiltrate. The diagnosis was made with clinical and histopathological findings.

IFAG should be kept in mind in the differential diagnosis of facial nodules in children. Families may be worried, so families should be informed about the benign course of the lesions. Lesions should be followed until regression and because of the increased risk of rosacea, especially ocular rosacea, patients should be examined annually by dermatologists and ophthalmologists [5,8].

#### Ethics

**Informed Consent:** Informed consent was taken from the patient's father for possible case report publication.

**Peer-review:** Internally peer-reviewed.

### Authorship Contributions

Concept: N.A., D.T., Design: N.A., D.T., Data Collection or Processing: M.M., S.Ş., S.A., S.AL., Analysis or Interpretation: N.A., Literature Search: M.M., Writing: M.M.

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