



What is your diagnosis?

Tanınız nedir?

© Sarenur Esener

Acıbadem Bodrum Medical Center, Muğla, Türkiye

Painful nodule on ear

A 76-year-old male patient presented to our clinic with a complaint of painful redness and an open wound on the right ear, which developed for the first time and has been present for one month. The dermatological examination revealed a painful erythematous nodule, approximately 1 cm in diameter, on the right ear's antihelix, opposite the tragus. Additionally, there was an ulceration, approximately 0.5 cm in diameter, with a soft yellow crust appearance on the nodule (Figure 1). The patient had no additional systemic disease or history of drug use, smoking, or alcohol use. The patient did not describe any trauma, cold, or hot contact that would trigger his complaint. The patient exhibited no



Figure 1. An ulcerated area of 0.5 cm in diameter on a nodule with a diameter of approximately 1 cm located on the right antihelix

psychological stress or anxiety. The patient had no family history of chronic skin disorders. The patient did not use any treatment for his current complaint. After one week of local wound care, the nodule and ulceration did not regress, prompting a recommendation to test the patient for full blood biochemistry, hemogram examination, and histopathological examination of the lesion. In laboratory examinations, white blood cell count was 8500/ μ L, sedimentation was 22 mm/hr, C-reactive protein was 8 mg/dL, and uric acid value was 8.5 mg/dL. Histopathological hematoxylin and eosin examinations revealed mixed inflammatory cell infiltration with macrophages and lymphocytes in the dermoepidermal region, as well as increased vascular proliferation and fibroplasia in the upper dermis (Figure 2).

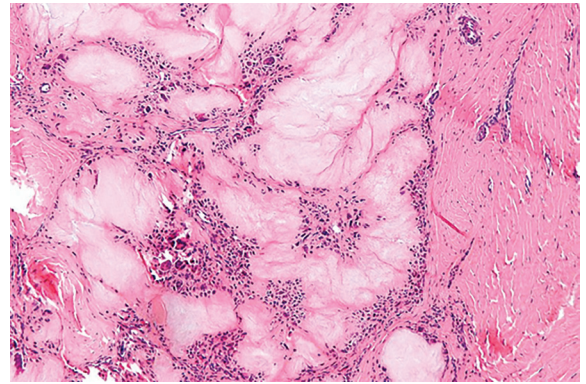


Figure 2. Mixed inflammatory cell infiltration at the dermoepidermal junction, fibroplasia appearance in the upper dermis (H&E examination, original magnification, x200)
H&E: Hematoksilen ve eozin

Address for Correspondence/Yazışma Adresi: Sarenur Esener MD, Acıbadem Bodrum Medical Center, Muğla, Türkiye
Phone: +90 506 792 67 25 **E-mail:** saaltuner@hotmail.com **Received/Geliş Tarihi:** 01.04.2019 **Accepted/Kabul Tarihi:** 11.06.2024
ORCID: orcid.org/0000-0002-1140-8525

Cite this article as: Esener S. Painful nodule on ear. Turkderm-Turk Arch Dermatol Venereol. 2024;58:90-1



Copyright© 2024 The Author. Published by Galenos Publishing House on behalf of the Society of Dermatology and Venereology. This is an open access article under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 (CC BY-NC-ND) International License.



Diagnosis of the case

Diagnosis: Gout

Gout, an acute or chronic arthritis, is caused by the accumulation of monosodium urate crystals in joints and connective tissue¹. Gout, one of the most common causes of inflammatory arthritis in men^{1,2}, has a prevalence of 1-4% in the general population³. Women typically experience gout after menopause^{1,2}. Hyperuricemia is the primary risk factor; hypertension, renal disorders, diuretic and alcohol use, a protein-rich diet, and obesity are other risks^{2,4}. Hyperuricemia developing in patients with myeloproliferative diseases, organ transplantation, and immunosuppressive treatment such as cyclosporine² and pyrazinamide usages for antituberculosis treatment is a risk factor for gout⁵.

Gout most commonly affects the first metatarsophalangeal joint, then it affects the tarsal, wrist, and interphalangeal joints^{1,6,7}. Gouty tophi often appears as yellow-white, rigid papules and nodules. Rarely, it can localize in the ear, elbow joint, or achilles tendon. Gouty tophi located in the auricular region are generally seen as painless, well-circumscribed nodules located in the helical fold^{2,8}. The first diagnoses for the papules and nodules located in the ear are chondrodermatitis nodularis helicis, actinic keratosis, basal cell carcinoma, squamous cell carcinoma, keratoacanthoma, chondroma, epidermoid and dermoid cysts, verruca vulgaris, amyloid and rheumatoid nodules^{2,5,8,9}.

The diagnosis of gout is made based on the clinical features of the lesion, elevated serum uric acid levels, the presence of monosodium urate crystals in the synovial fluid or tissue aspirate, or a histological examination. Serum uric acid levels may be normal during the acute attack period^{3,6}. In histopathological examination, tophus fixed with alcohol shows granulomatous infiltration surrounding needle-shaped urate crystals, while the tophus fixed with formol shows the feature of slightly eosinophilic amorphous material surrounded by histiocytes and foreign body granulation tissue².

In the treatment of acute tophi, colchicine, non-steroidal anti-inflammatory drugs, and steroids are used in addition to a protein-restricted diet^{2,3,7}. In maintenance treatment, patient education, a protein-poor diet, and the use of drugs that reduce serum uric acid levels (allopurinol, febuxostat, uricosuric agents, etc.) are the gold standards^{3,4,6}. Large nodules can be excised². Informed consent was obtained.

Ethic

Informed Consent: Informed consent was obtained.

Financial Disclosure: The authors declared that this study received no financial support.

References

1. Mutlu A, Dündar E, İşeri M, Erçin C, Cefle A: An unusual presentation of gout: Tophi in the Middle Ear. *J Int Adv Otol.* 2016;12:216-8.
2. Chabra I, Singh R: Gouty tophi on the ear: A review. *Cutis.* 2013;92:190-2.
3. Ragab G, Elshahaly M, Bardin T: Gout: An old disease in new perspective - A review. *J Adv Res.* 2017;8:495-511.
4. Jones G, Panova E, Day R: Guideline development for the management of gout: role of combination therapy with a focus on lesinurad. *Drug Des Devel Ther.* 2017;11:3077-81. Erratum in: *Drug Des Devel Ther.* 2017;11:3589-90.
5. Chang HJ, Wang PC, Hsu YC, Huang SH: Gout with auricular tophi following anti-tuberculosis treatment: a case report. *BMC Res Notes.* 2013;6:480.
6. Perkins P, Jones AC: Gout. *Ann Rheum Dis.* 1999;58:611-7.
7. Rheumatology AF; clinical pharmacology registrar; Rheumatologist PK; clinical pharmacologist. The management of gout. *Aust Prescr.* 2016;39:119-22.
8. Smith JA, Kessler M, Culpepper K: Multiple superficial white nodules on the bilateral helical rims. *Cutis.* 2016;97:166;175;176.
9. Friedmann I: Pathological lesions of the external auditory meatus: a review. *J R Soc Med.* 1990;83:34-7.