

## CASE REPORT

# Chondrodermatitis Nodularis Helicis

Fekete Gyl<sup>1</sup>, Fekete Júlia Edit<sup>2</sup><sup>1</sup> Department of Dermatology, University of Medicine and Pharmacy, Tîrgu Mureş, Romania<sup>2</sup> Public Health Center, Tîrgu Mureş, Romania

Chondrodermatitis nodularis helicis is a rare and well defined clinical condition, characterized by the appearance of painful nodule or nodules located on the helix. Affects mainly white men, aged 50 and more. The pathogenesis of the disease is unclear. The used treatments gives excellent results, but the disease tends to relapse. We present a clinical case of a young man of 38 years of age with a painful nodule located on the left ear.

**Keywords:** chondrodermatitis, nodule, helix

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## Introduction

Chondrodermatitis nodularis helicis is a rare and well defined clinical condition, characterized by the appearance of a painful nodule or nodules located on the helix. It affects mainly Caucasian men, aged 50 and more. It was described in 1916 by Winklen [1].

## Case presentation

We present the clinical case of a 38 year old man, having a painful nodule located on the helix of the left ear, which developed slowly over a few months. The dermatologic examination showed the presence of an erythematous nodular lesion, of about 8 mm in diameter, with firm consistency, sensitive to palpation, located on the helix of the left ear (Figure 1). The patient denied the existence of an injury of the affected area. Personal and family history were unremarkable. The routine laboratory analyses like haematology and biochemistry were in normal limits.

## Discussions

The painful nodule of the ear appears as a nodular lesion, located most on top of the helix and rarely on the antehelix. It may also appear as small round or oval nodules, with a few mm in diameter, placed under the skin and included in the cartilage of the ear. These are usually located symmetrically, and, rarely, they can be multiple [2]. The consistency is firm and they are painful to touch. The disease affects mostly males (male/female ratio is 10/1) aged over 50 years (85% of patients are aged between 50 and 80 years), but may also occur in younger patients [3]. The diagnosis can be made shortly after the appearance of the lesion, based on the clinical aspect and on the presence of spontaneous and especially pressure pain, which is worsening rapidly and brings the patient to the doctor. Clinically the disease appears as a small papule or nodule

covered by a crust which may fall, making the lesion less painful [4]. The spontaneous regression of the nodule is rare. The histopathological appearance of the nodule is very characteristic, there is often an epidermal ulceration, surrounded by substantial acanthosis. On top of the ulceration a parakeratotic crust appears, which can highlight a transepidermic elimination of damaged elastic fibers [5]. The underlying dermis presents an inflammatory infiltrate located around the massive fibrinoid deposits. The presence of dermal granulomas around the necrobiotic areas [6] made a number of authors use the term of necrobiotic perforant granuloma [7]. The cartilage is damaged, presenting the loss of specific cells and chondrolysis. The pathogenesis of the disease is unclear. Several factors were taken into account, such as [8,9]: alterations of embryonic development of vascular and ear cartilage, more common in men than women; the anatomical location of the ear, which makes it more exposed to traumas; the lack of subcutaneous tissue between the dermis and cartilage, which would promote the emergence of low resistance areas in the dermis, to various irritants (thermal, mechanic,



Fig. 1. Nodule on the helix of the left ear

etc.). Ackerman believes that changes in epidermal hyperplasia caused by mechanical origin would result in a secondary cartilage damage [10]. Other authors considered the disease as an actinic induced necrobiotic granuloma [11]. Newcomer, after studying and observing 94 histological parts, where in 82 of these he found remnants of broken hair shaft, he proposed the follicular origin of the disease [12]. Microtraumas could also favorize the hyperplasia and wall rupture of the infundibulum, leading to the formation of inflammatory granuloma. The evolution is chronic, without tendency to spontaneous healing [13]. As treatments, we can use local corticotherapy, cryotherapy or intralesional corticoid injections. Our patient received local treatment with potent steroids, with temporary improvement of symptoms. Other methods of treatment should be the destruction of the nodules by electrocauterisation, curettage or surgical ablation [14]. Argon laser treatment gives excellent results, being the modern treatment of this disease.

### Conclusions

The painful nodule of the ear is a rare clinical condition, well defined, characterized by the appearance of one or more painful nodules located on the helix. The disease is generally seen in men aged over 50 years, but can occur at much younger ages. Treatments such as electrocauterisa-

tion, curettage, surgical or argon laser ablation give excellent results, but the disease tends to relapse.

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