

# Chondrodermatitis Nodularis Helicis

Chondrodermatitis nodularis helicis (CNH) is a relatively uncommon, painful, inflammatory condition that manifests as a small nodule or growth on the auricular cartilage, typically on the outer ear. The disorder most commonly affects men over the age of 40, though it can occur in individuals of any age. The lesion is often located on the helix or antihelix of the ear and can present with various characteristics such as pale or slightly reddish coloration, covered by scale or, in some cases, an ulcer. While it can remain stable in size, usually ranging from 2 to 4 mm in diameter, it may persist for years. This condition is primarily benign, though it can cause significant discomfort due to its inflammatory nature.

## Etiology

The precise cause of CNH remains unclear; however, several contributing factors have been proposed. Chronic mechanical trauma, including habitual pressure from sleeping on one side, is thought to play a central role in the development of the condition. This trauma likely leads to ischemia or poor blood flow to the affected area, which may initiate an inflammatory response in the cartilage. Additionally, increased sun exposure, which can lead to solar damage, and previous episodes of frostbite, which can damage the skin and underlying cartilage, are also considered potential contributing factors. The lesion typically forms on the side of the ear that is in constant contact with a surface during sleep, further supporting the trauma-related hypothesis.

## Clinical Presentation

The hallmark of CNH is the presence of a small, tender nodule or growth on the ear, most commonly located on the helix or antihelix. The nodule is usually 2 to 4 mm in diameter and may appear pale, reddish, or have an overlying scale. In some cases, the lesion may ulcerate, leading to a small open wound. The lesion is often painful, especially when pressure is applied, which can exacerbate the discomfort. Although CNH is not typically associated with any systemic symptoms, the chronic irritation and discomfort can significantly impact the quality of life for affected individuals.

## Diagnosis

The diagnosis of CNH is primarily clinical, based on the characteristic presentation of the lesion and the patient's medical history. It is essential to differentiate CNH from other conditions that may present with similar symptoms, such as basal cell carcinoma, squamous cell carcinoma, or auricular infections, all of which may require different management strategies. Histopathological

examination of the lesion is generally not necessary unless there is uncertainty in the diagnosis or the lesion shows atypical features, such as rapid growth or irregular borders.

### **Treatment Options**

The management of CNH aims to alleviate symptoms and prevent recurrence. There are several treatment options available, ranging from conservative measures to surgical interventions.

- **Excision:** Excision of the lesion is considered the most definitive treatment. Surgical removal of the nodule, including excision of the inflamed cartilage beneath the skin, is critical to reducing the likelihood of recurrence. This procedure is generally performed under local anesthesia and is highly effective in resolving the condition. However, recurrence can still occur if the underlying cartilage is not adequately removed.
- **Corticosteroid Injections:** For patients who prefer a less invasive treatment or those who are not candidates for surgery, corticosteroid injections represent an alternative management approach. Injections of corticosteroids, such as triamcinolone, can be administered directly into the lesion every 2 to 4 weeks until the lesion resolves. This method can be effective in reducing inflammation and promoting healing, although recurrence is still possible if the underlying cause of the inflammation is not addressed. If corticosteroid treatment fails, surgical excision may become necessary.
- **Cryotherapy and Laser Therapy:** Cryotherapy, using liquid nitrogen to freeze the lesion, and laser therapy are also potential treatment options. However, these methods are less commonly used and are generally considered when other treatments have failed. These therapies may offer a more localized treatment with reduced risk of scarring.

### **Prognosis**

Chondrodermatitis nodularis helcis generally has a good prognosis once treated. Most patients experience resolution of the lesion with appropriate management, either through excision or corticosteroid therapy. However, recurrence can occur, particularly if the underlying cause of trauma or pressure is not addressed. Therefore, patients are advised to avoid sleeping on the affected side and to reduce exposure to other potential triggers, such as sunburn or frostbite.

### **Conclusion**

Chondrodermatitis nodularis helcis is a benign, albeit painful, condition that predominantly affects middle-aged men. While the exact cause remains uncertain, it is believed to result from chronic trauma, sun exposure, or frostbite. The primary treatment options include surgical excision and corticosteroid injections, both of which are effective in resolving symptoms. Preventative measures, such as avoiding pressure on the affected ear, can help reduce the risk of recurrence.

## References

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