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Case Report

# Clear Cell Hidradenoma of the Right Lower Eyelid without Recurrence: A Case Report

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## ABSTRACT

**Aims** Clear cell hidradenoma (CCH) is a rare benign tumor that originates in the eccrine glands and tends to occur in the upper extremities and face. In the differential diagnosis of benign tumors of the head and neck, malignant hidradenocarcinoma presents with a similar appearance. Still, it has a more aggressive clinical course and high rates of local nodal metastasis.

**Case Presentation:** A 70-year-old female patient presented with a 1.5×1.5×1 cm, non-tender, reddish purple nodule with a lobular appearance on her right lower eyelid. A small nodular asymptomatic lesion lasted six years and began to grow in size over the last two years. It is worth mentioning that the lesion was odorless at the time. The lesion had a malodor and purulent infiltration. Due to the patient's age and gender, a differential diagnosis of Basal Cell Carcinoma was made, and an excisional biopsy was performed to rule out these possibilities. A 0.6×0.6×0.5 skin punch biopsy revealed skin tissue showing nests of cells with clear and eosinophilic cytoplasm within the dermis, consistent with features of CCH. Marked vascularity and small lumina were present, and based on these histopathological findings, a diagnosis of CCH was made. H and E staining was done, confirming our previous diagnosis of CCH. under local anesthesia, a nodule measuring 1.5×2×1 was surgically excised. There was no relapse 7 months following excisional surgery, and there were no scars.

**Conclusions:** CCH is a rare benign tumor that typically occurs in the upper extremities and face, but it can also develop in other parts of the body, such as the foot and breast, and can be challenging to diagnose. The diagnosis is mainly based on biopsy and histological studies. Since it is a benign tumor, it is essential to consider it as a differential diagnosis to prevent misdiagnosis and overtreatment.

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## مقاله موردی

# گزارش یک مورد هیدرآدنومای سلولی شفاف پلک پایین راست بدون عود

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## چکیده

**هدف** هیدرآدنومای سلول شفاف (CCH) یک تومور خوش‌خیم نادر است که از غدد اکرین منشأ می‌گیرد و تمایل به اندام‌های فوقانی و صورت دارد. این تومور در تشخیص افتراقی تومورهای خوش‌خیم سر و گردن قرار می‌گیرد. هیدرآدنوکارسینوم بدخیم ظاهری مشابه دارد اما سیر بالینی تهاجمی‌تری دارد و میزان متاستاز غدد لنفاوی موضعی در آن بالاست.

**معرفی بیمار:** بیمار خانم ۷۰ ساله‌ای که با یک ندول بنفش مایل به قرمز، غیرحساس به لمس به ابعاد۱× ۱/۵×۱/۵ سانتی‌متر و ظاهری لوبولار در پلک پایین سمت راست خود مراجعه کرد. یک ضایعه کوچک ندولار بدون علامت شش سال طول کشید و در دو سال گذشته شروع به بزرگ شدن کرد، ضایعه در آن زمان بدون بو بود. ضایعه بوی بد و نفوذ چرکی داشت. با توجه به سن و جنس بیمار، تشخیص افتراقی BCC داده شد و بیوپسی اکسیزیونال برای رد این احتمالات انجام شد. بیوپسی پانچ پوستی با ابعاد ۰/۵×۰/۶×۰/۰۶ نشان داد: برش پوستی، پوست را با لانه‌هایی از سلول‌ها با سیتوپلاسم سلولی شفاف و ائوزینوفیلیک در درم نشان می‌دهد. عروق مشخص و لومینای کوچک وجود دارد. بر اساس این گزارش، تشخیص هیدرآدنومای سلول شفاف بود. رنگ‌آمیزی H&E انجام شد و تشخیص قبلی ما مبنی بر هیدرآدنومای سلول شفاف را تأیید کرد. تحت بی‌حسی موضعی، یک ندول به ابعاد ۱×۲×۱/۵ با جراحی برداشته شد. ۷ ماه پس از جراحی، هیچ عود بیماری مشاهده نشد و هیچ زخمی نیز باقی نماند.

**نتیجه‌گیری:** هیدرآدنومای سلول شفاف (CCH) یک تومور خوش‌خیم نادر است که تمایل به اندام‌های فوقانی و صورت دارد، اما می‌تواند در هر قسمتی از بدن مانند پا و سینه رشد کند و شک به آن دشوار است. تشخیص عمدتاً مبتنی بر بیوپسی و مطالعات بافت‌شناسی است. از آنجایی که این یک تومور خوش‌خیم است، در نظر گرفتن آن به عنوان یک تشخیص افتراقی برای جلوگیری از تشخیص اشتباه و درمان بیش از حد مهم است.

**کلیدواژه‌ها:**
هیدرآدنومای سلول شفاف
عود
گزارش موردی

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## Introduction

Clear cell hidradenoma (CCH) is a rare benign tumor that originates in the eccrine glands and tends to occur in the upper extremities and face. The aggressive clinical behavior and malignant progression are uncommon. They are usually solitary, non-encapsulated, restricted tumors made up of polyhedral or fusiform cells with clear or eosinophilic cytoplasm. Herein, we present a case of CCH of the right lower eyelid of a 70-year-old female patient.

## Case Presentation

A 70-year-old female patient presented with a 1.5×1.5×1 cm, non-tender, reddish purple nodule with a lobular appearance on her right lower eyelid. A small nodular asymptomatic lesion lasted six years and began to grow in size over the last two years. It is worth mentioning that the lesion was odorless at the time. The patient had no previous medical history of adnexal tumors and had not used therapeutic measures or medicines. When the patient presented at the clinic, the lesion had a malodor and a purulent infiltration. Due to the patient's age and gender, a differential diagnosis of Basal Cell Carcinoma was made, and an excisional biopsy was performed to rule out these possibilities. A 0.6×0.6×0.5 skin punch biopsy revealed skin tissue showing nests of cells with clear and eosinophilic cytoplasm within the dermis, consistent with features of CCH. Marked vascularity and small lumina were present, and based on these histopathological findings, a diagnosis of CCH was made. H and E staining was done, confirming our previous diagnosis of CCH. Under local anesthesia, a nodule measuring 1.5×2×1 was surgically excised. Microscopic examination revealed a circumscribed nodule in the dermis, composed of polyhedral cells with clear and eosinophilic cytoplasm. There was no evidence of relapse seven months after excisional surgery, and the surgical site healed well without noticeable scarring.

## Discussion

CCH is a benign tumor of the eccrine gland with a rare rate of malignant transformation. It is most common in adult women in their second to fifth decade of life. The head and face are the most common locations. You may know these tumors as solid-cystic hidradenoma, nodular hidradenoma, or eccrine acrospiroma [4]. It is twice as much in women as in men [7]. It was first defined by Liu in 1949 as clear cell papillary carcinoma of the skin [3]. It commonly presents as a slowly enlarging, single, asymptomatic, firm tumor or nodule, 5–30 mm in size, and can be connected to the overlying epidermis. Some tumors discharge serous material, while others tend to ulcerate [1]. The risk of local recurrence after surgical resection exceeds 50%. Recurrent clear cell tumors are triggered by surgical stimulation, increasing the risk of metastasis [2].

Malignant lesions are rare, but if they occur, they can be primary or secondary to a primary lesion and are resistant to radiotherapy. They also tend to metastasize through the lymphatic and vascular systems. They have a poor prognosis, and invasive surgery is required to cure them [4]. In ultrasound, these lesions are seen as complex masses containing solid and cyst-like components. Although imaging does not give us specific findings, the best method of imaging these lesions is MRI. In the cystic components of these lesions, an air-fluid level (mainly due to hemorrhage) and in their solid components, hypervascularity is seen [3, 5, 6].

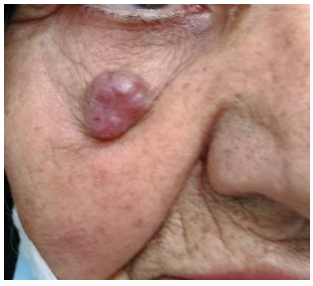


**Figure 1.** Non-tender, reddish purple nodule, with lobular appearance on her right lower eyelid- first visit

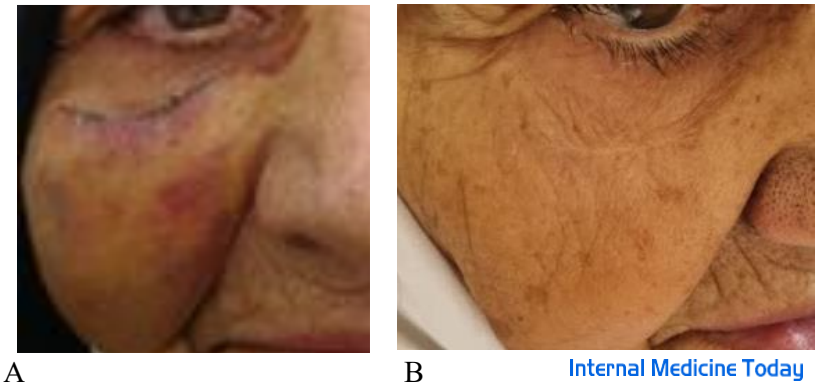


**Figure 2.** A nodule measuring 1.5 × 2 × 1 cm was surgically excised — (a) after excision, and (b) three years after surgery

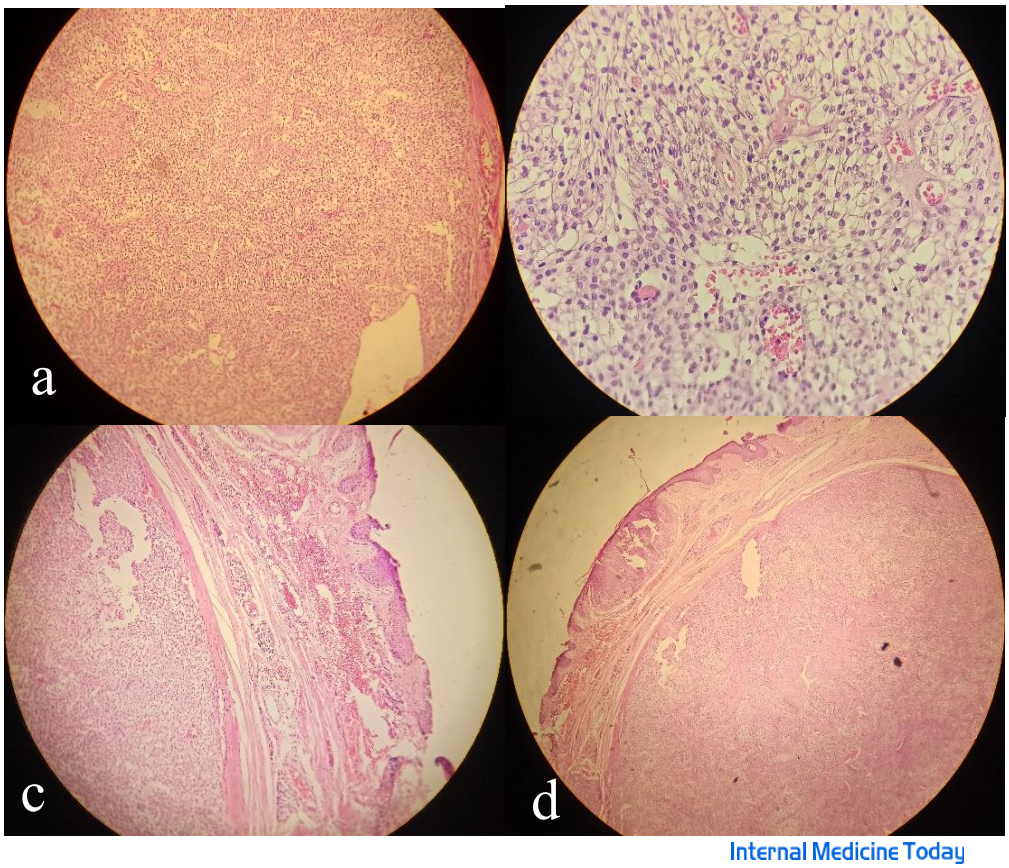


**Figure 3.** Bland clear cells are arranged in nodules.

Diagnosis is mainly done by biopsy. Some colleagues use Core needle biopsy [5], some prefer excisional biopsy [3, 4], and others perform both FNA and excisional biopsy [9]. It typically includes polyhedral or fusiform cells with clear or eosinophilic cytoplasm and round nuclei [5]. In the solid part of the tumor, there are more fusiform cells in the periphery, which contain basophilic cytoplasm, and polyhedral cells in the center, whose cytoplasm contains glycogen, which is washed out during staining [3, 4]. The eosinophilic part is primarily located in the cystic part of the tumor [3]. Being positive for P63, a myeloepithelial marker, is also helpful in immunohistochemistry studies [9]. Excisional surgery with a sufficient distance from the margin of the tumor and primary closure is the best possible treatment [8].

## Ethical Considerations

### Compliance with ethical guidelines

This study was approved by the Ethics Committee of Gonabad University of Medical Sciences, Gonabad, Iran. Additionally, informed consent was obtained from the patient.

### Conflicts of interest

None declared.

### Authors' contributions

All authors contributed to the study's conception and design. MM, HM, and MT performed material preparation, data collection, and acquisition. AG, MM, HM, and MT were involved in writing the first draft of the manuscript. All authors read and approved the final manuscript.

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### Data Availability Statement:

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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