

# Eyelid polyposis caused by eccrine hidrocystoma

## *Polipose palpebral por hidrocistoma écrino*

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### ABSTRACT

Eccrine hidrocystomas are rare lesions, cysts, or benign tumors, which lead to bilateral deformities in the eyelid areas. Several treatments are described in the literature. However, none of them has been established as the gold standard. Hence, it becomes necessary to consider the contribution of different opinions and available resources to clinical evaluation. A 73-year-old female patient presented with slow-growing tumors on both eyelids, which consequently led to partial visual field obstruction and ectropion. She underwent 2 surgical resections, one in 2007 and the other in 2008. As a result, she showed significant improvement of the bilateral eyelid contours and satisfactory symmetry between the areas. Histopathological diagnosis indicated eccrine hidrocystoma. The surgical treatment of bilateral eyelid polyposis associated with eccrine hidrocystoma proved to be a reproducible procedure that may ensure satisfactory aesthetic and functional results, without causing major postoperative morbidities to the patient.

**Keywords:** Plastic surgery/methods. Face/surgery. Eyelids/surgery. Hidrocistoma.

### RESUMO

Os hidrocistomas écrinos são lesões raras, císticas e benignas, que resultam em deformidades nas regiões palpebrais bilateralmente. Vários tratamentos são citados na literatura, porém nenhum deles é considerado padrão de referência. Deve-se somar as impressões obtidas à avaliação clínica e aos recursos disponíveis. Paciente de 73 anos, feminino, apresentando tumorações em regiões palpebrais bilaterais, de crescimento lento, com obstrução parcial do campo de visão e ectrópio. Foi submetida a dois procedimentos cirúrgicos para ressecção, em 2007 e em 2008. Apresentou melhora significativa do contorno palpebral bilateral, com boa simetria entre as regiões. O exame histopatológico concluiu: hidrocistoma écrino. O tratamento cirúrgico para a polipose palpebral bilateral relacionada ao hidrocistoma écrino mostrou-se uma modalidade que pode apresentar bons resultados estéticos e funcionais, sendo reprodutível, e sem causar maiores morbidades pós-operatórias ao paciente.

**Descritores:** Cirurgia plástica/métodos. Face/cirurgia. Pálpebras/cirurgia. Hidrocistoma.

This study was performed at the Plastic Surgery Service of the Institute of Integrative Medicine Professor Fernando Figueira (IMIP-PE), Recife, PE, Brazil.

Submitted to SGP (Sistema de Gestão de Publicações/Manager Publications System) of RBCP (Revista Brasileira de Cirurgia Plástica/Brazilian Journal of Plastic Surgery).

Article received: August 2, 2010  
Article accepted: February 2, 2011

### INTRODUCTION

Eccrine hidrocystoma, also known as sudoriparous cyst or eccrine cystadenoma, is a rare cystic condition that originates from sweat glands. It was first described by Robinson<sup>1</sup> in 1893. It is characterized by vesicles, often numerous, and usually affects the skin of the face and eyelids<sup>2,3</sup>. In women older than 40 years, it predominantly compromises

the periorbital and malar regions<sup>4</sup> and becomes exacerbated upon heat exposure<sup>5</sup>.

Clinically, it is important to differentiate eccrine hidrocystomas from sebaceous or epidermal inclusion cysts, syringomas, milia, pigmented cysts, and basal cell carcinomas, given that they require different treatments<sup>6</sup>. Although a hidrocystoma has a typical morphology, histopathological evaluation is always recommended for an accurate diagnosis<sup>7-9</sup>.

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Several treatments for eccrine hidrocystoma are described in the literature, such as botulinum toxin, atropine, electrocautery, and surgical resection. However, as none of these has been identified as the gold standard, it becomes necessary to consider the contribution of different opinions and available resources to clinical evaluation<sup>2,3,10</sup>.

This report aims to describe the case of a patient who underwent surgical treatment for the correction of eyelid cystic lesions.

### CASE REPORT

A 73-year-old female retired patient presented with tumors on both eyelids during her first medical examination performed in the first half of 2007 (Figure 1). The patient reported that the tumors had been growing slowly for the past several years, without pain or pruritus. Moreover, she reported partial visual field obstruction and unaesthetic appearance of the lesions as main complaints.

On physical examination, multiple cystic lesions were observed, often numerous in the upper eyelid areas, which were mainly pedunculated, with few hyperchromic and bilateral lesions. The patient also presented with ectropion due to the pressure from the weight of the cysts on the eyelid tissues. The patient had no comorbidities or systemic disease at the time of medical examination.

The patient underwent 2 surgical procedures. During the second half of 2007, the first surgery was performed to resect large lesions, paying special attention to the surgical margins to enable primary closure of the ellipsoid incisions through advancement flaps (Figure 2). The second surgery was performed in November 2008 to resect the remaining lesions that caused deformities on the eyelids of the patient, also using ellipse-shaped surgical margins. Histopathological diagnosis indicated eccrine hidrocystoma.

The postoperative period was uneventful, and the patient recovered without complications. A significant improvement of the bilateral eyelid contours and proper symmetry were observed after surgery, as well as a reversal of the ectropion (Figure 3). Moreover, no new polyps were detected during the follow-up period.

The patient was satisfied with the outcome of the procedure and returned to her usual activities.

### DISCUSSION

Besides being rare, eccrine hidrocystomas are difficult to diagnose by physical examination alone. In the study of Hillson et al.<sup>7</sup>, a significant difference in diagnosis was observed between physical and histopathological examinations. Meanwhile, Schellini et al.<sup>9</sup> observed only a 9.6% agreement between the results of both examinations. In the



*Figure 1 – Preoperative appearance.*



*Figure 2 – Initial postoperative appearance.*



*Figure 3 – Final postoperative appearance.*

present case, the clinical characteristics of the lesions were uncommon, presenting as multiple confluent formations of different sizes, with some reaching dimensions close to 1 cm. This suggests other possible conclusions<sup>6</sup>, as the only examination that provided the basis for diagnosis was a histopathological evaluation.

Several treatments for eccrine hidrocystomas are proposed in the literature, although consensus has not been reached as to the most appropriate method. Sarabi et al.<sup>3</sup> indicated needle aspiration to be the most common treatment, although it presents a high risk of recurrence, and that surgical removal might lead to the appearance of scars. It is also possible to

remove the lesions by electrocautery, followed by subsequent dissection of the cyst wall. This method is quite efficient for multiple small tumors.

Because of the pathophysiological features of multiple lesions and involvement of eccrine gland secretion, topical treatment with 1% atropine sulfate cream was primarily suggested. According to Khunger et al.<sup>2</sup> and Alfadley et al.<sup>8</sup>, the results of the topical treatment may vary from satisfactory to unsatisfactory, with possible clinical manifestations related to atropine intolerance due to cholinergic adverse effects, as described by Lee & Ryman<sup>5</sup>.

Blugerman et al.<sup>10</sup> suggested the use of botulinum toxin A for the treatment of multiple eccrine hidrocystomas. The authors reported as benefits the easy application of the method, absence of unaesthetic scars, and satisfactory post-treatment evolution. The following are the disadvantages of the treatment: periodic need for new applications, high cost, and pain caused by the needle puncture on the epidermis. Among the cases of topical treatment described in the literature, the use of this method was recommended to individuals with small lesions, in contrast to the patient described in this article, whose lesions were large and numerous. Hence, for our patient, we opted for surgical cyst removal by piecemeal resection, paying attention to the surgical margins, which enabled proper wound healing.

Surgical treatment for eyelid polyposis due to eccrine hidrocystoma proved to be a procedure that may provide

satisfactory aesthetic and functional results in properly selected patients. Moreover, it is easily reproducible, without causing postoperative morbidities to the patient.

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