

Case report

Authors:

Laura Costa Beber de Jesus¹
 Gabriela Machado Dias Junqueira¹
 Getullio Pisa Carneiro¹
 Douglas Haddad Filho²

¹ Department of Dermatology,
 Universidade de Santo Amaro, São
 Paulo (SP), Brazil.

² Dermatological Surgery
 Outpatient Clinic, Universidade de
 Santo Amaro, São Paulo (SP), Brazil.

Correspondence:

Douglas Haddad Filho
 R. Professor Enéas de Siqueira Neto,
 340
 Jardim das Embuias
 04829-300 São Paulo (SP)
 E-mail: cirurgioplastica@dhclinica.com.br

Received on: 30/04/2018

Approved on: 11/08/2020

Study conducted at the University of
 Santo Amaro, São Paulo (SP), Brazil.

Financial support: None.

Conflict of interest: None.

Acknowledgement: We thank our
 family members and tutors, who
 always encourage us to improve our
 knowledge in an attempt to offer the
 best to our patients.



Cutaneous pilar cysts: description of an innovative technique

Cistos cutâneos no couro cabeludo: descrição de técnica inovadora

DOI: <https://www.dx.doi.org/10.5935/scd1984-8773.20201241191>

ABSTRACT

Cysts are benign epithelial tumors widespread. The trichilemmal cysts, originating from the anagen's isthmus, represent about 20% of the cysts and are located more frequently in the scalp (90%). Several methods can be used for the removal of the cysts. The choice of technique depends on its characteristics, such as size, mobility, consistency, quiescence, inflammation, and quantity. However, they may grow again if the capsule is incomplete removed. The authors present a simple variant of the marsupialization technique that allows its complete removal.

Keywords: Ambulatory Surgical Procedures; Cysts; Scalp Dermatoses

RESUMO

Cistos são tumores epiteliais benignos extremamente comuns. O cisto triquilemal ou pilar tem origem no istmo do pelo anágeno, representa cerca de 20% dos cistos e localiza-se mais frequentemente no couro cabeludo (90%). Vários métodos podem ser usados para a retirada dos mesmos. A escolha da técnica depende de suas características, como: tamanho, mobilidade, consistência, quiescência, inflamação e quantidade. Porém, eles podem reaparecer se houver remoção incompleta da cápsula. Os autores apresentam uma variante simples da técnica de marsupialização que permite a sua retirada total.

Palavras-chave: Cistos; Couro cabeludo; Procedimentos cirúrgicos ambulatoriais

INTRODUCTION

Cysts are widespread benign epithelial tumors. They consist of a space lined by an epithelium filled with liquid or pasty content, mobile concerning the deep planes, located in the dermis or subcutaneous.^{1,2} They are usually asymptomatic and are located mainly in the cephalic segment, neck, and upper trunk.¹

Epidermoid or follicular cysts are more common in adults and can originate from the hair infundibulum or follicular ostium (comedone). The pillar or trichilemmal cyst derives from the isthmus of the anagen hair and the steatocystoma, from the sebaceous glands, therefore being true sebaceous.³

Trichilemmal cysts are less common than epidermoid cysts, representing about 20% of cysts. They have a preference for women, middle-aged adults, or older than 60 years. They are more frequent on the scalp (90%) and rare on the face, limbs, and trunk.^{4,5} Unlike the epidermoid cyst, they have no

orifice. They present a firmer consistency and are more mobile than the epidermoid cyst.³

Several methods can successfully remove the cysts. The choice depends on the cyst's size, the quality of the overlying skin, the existence or not of the exit hole of the cyst, among other variables. However, they can relapse if there is incomplete removal of the capsule.⁶

We present a surgical marsupialization technique that allows safety in the total removal of the capsule, a technical variation not described in the literature.

METHODS (SURGICAL DESCRIPTION)

A cyst (about 1.5 cm in its largest diameter) in the scalp's midline, of elastic consistency, painless on palpation, not adhered to deep planes (Figure 1).

1. Marking of the incision on the line with the largest diameter of the cyst and its limits (Figure 1)
2. Local asepsis and antisepsis
3. Local anesthesia (lidocaine with vasoconstrictor), 2ml, in the incision, in the plane between the dermis and the anterior wall of the cyst (Figure 2)
4. Skin incision with a surgical scalpel blade n. 15 (Figure 3)
5. Incision in the cyst capsule with a surgical scalpel blade n. 15
6. Drainage of cyst content (Figure 4)
7. Deep anesthetic infiltration (1 ml) in the plane between the posterior wall of the cyst and the periosteum (Figure 5)
8. Expression of the cyst towards the skull (Figure 6)
9. Removal of the cyst using a Halsted clamp (Figure 7)
10. Suture



FIGURE 2: Anesthesia with local vasoconstrictor in the central incision

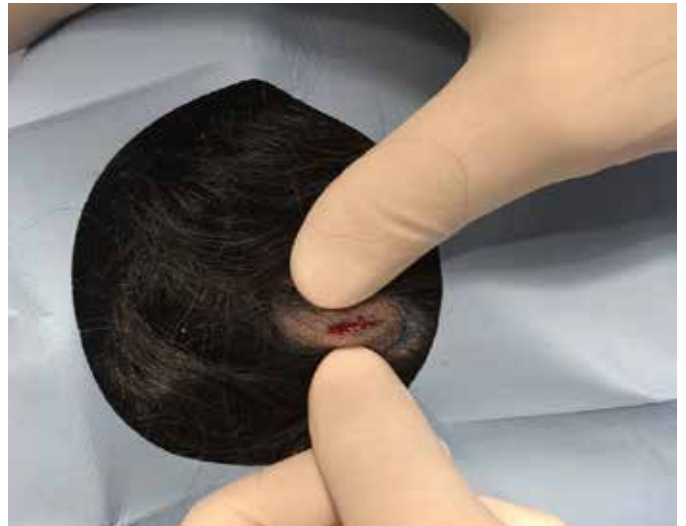


FIGURE 3: Central incision in the cyst



FIGURE 1: Marking of lesion boundaries and central incision site



FIGURE 4: Drainage of the cyst content



FIGURE 5: Lidocaine infiltration by the periosteum



FIGURE 7: Cyst removal, showing the total removal of the capsule



FIGURE 6: Compression of the pericyst region

DISCUSSION

Epidermoid or follicular cysts can have a central orifice and are often found in the dermis, hypodermis, and subcutaneous tissue. Although they are a very common and easily resolved clinical entity, they still depend on surgical management.³

The need for resections of the skin segment above the cyst depends a lot on the skin's quality since the cyst may have suffered inflammation and/or infections. Another fact requiring skin removal is the presence of the orifice that identifies the follicular ostium from which the cyst derives, which also must be removed.

Conventional removal is performed with infiltration anesthesia around and superficially to the anterior cyst wall, and it is one of the most used techniques in treating follicular cysts.⁴ It is performed through an incision on the skin surface, exposing the underlying cyst. The Halsted clamp is used to facilitate the detachment of the cyst's lateral and deep walls with delicately curved iris scissors until the total removal of the structure.^{1,6,7}

Although this technique is highly efficient, the possibility of rupture of the cyst in the tissues' dissection increases the probability of the permanence of capsule residues, potentiating a recurrence.

The technique presented performs the infiltration in the cyst's posterior region, which, with a two-finger compression maneuver, everts the cyst towards the incision when it is pulled. The inflammatory and infectious cyst recurrence processes can lead to the formation of a perilesional granuloma and reactive fibrosis, making it difficult to remove the capsule. In such cases, the presented technique's applicability may not be indicated since the existing fibrosis in the region would hinder the cyst's complete removal. Thus, removing the block structure, that is, skin and cyst, is recommended, which, although increasing the procedure's volume, guarantees the complete removal of the capsule.

The advantage of the presented technique lies in the fact that it is not necessary to separate the cyst's tissue and neighboring tissues, which, in turn, decreases bleeding and, consequently, the surgical time. This technique is simple, quick and applicable to places like the rigid scalp surface.³ ●

REFERENCES

1. Junior WB, Chiacchio ND, Criado PR. Tratado de dermatologia. 2nd ed. São Paulo: Atheneu, 2014. p. 2332.
2. Sampaio SAP, Rivitti EA. Dermatologia. 3th ed. São Paulo: Artes Médicas, 2007. p. 1120-1121.
3. Galdelha ADR, Costa IMC. Cirurgia Dermatológica. 3th ed. São Paulo : Atheneu, 2017. p. 761-762.
4. Al-Khateeb TH, Al-Masri NM, Al-Zoubi F. Cutaneous cysts of the head and neck. J Oral Maxillofac surg. 2009;67(1):52-7.
5. Fitzpatrick TB. Fitzpatrick's color atlas and synopsis of clinical dermatology. 5th ed. New York: McGraw-Hill, 2005. p. 171.
6. Mehrabi D, Leonhardt JM, Brodell RT. Removal of keratinous and pilar cysts with the punch incision technique: analysis of surgical outcomes. Dermatol Surg. 2002;28(8):673-7.
7. Lopes Filho LL, Lopes LRS. Cistos (Epidérmico, Pilar, Mixoide, Dermóide), Dermatofibroma e Lipoma. In: Palermo E. [et al.] editors. Tratado de cirurgia dermatológica, cosmética e laser da Sociedade Brasileira de Dermatologia. 1st ed. Rio de Janeiro: Elsevier, 2013. p. 621-627.

AUTHORS 'CONTRIBUTION:

Laura Costa Beber de Jesus |  ORCID 0000-0003-2347-5554

Study design and planning; preparation and writing of the manuscript; critical literature review.

Gabriela Machado Dias Junqueira |  ORCID 0000-0003-0899-9341

Preparation and writing of the manuscript; critical literature review.

Getullio Pisa Carneiro |  ORCID 0000-0001-7748-0282

Approval of the final version of the manuscript; critical revision of the manuscript.

Douglas Haddad Filho |  ORCID 0000-0001-9304-4739

Approval of the final version of the manuscript; study design and planning; preparation and writing of the manuscript; active participation in research orientation; intellectual participation in propaedeutic and/or therapeutic conduct of studied cases.