

CASO REPORT

Recurrent Solitary Cylinder: Case report of the scalp

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ABSTRACT

Solitary cylindroma is an infrequent benign tumour, of slow evolution, which originates in the adnexa of the scalp, neck and face. They are generally classified according to their presentation: solitary or multiple. Dermatoscopic and histopathological studies, as well as a very brief review of the subject, are performed.

INTRODUCTION

Cylindromas are slow-growing benign adnexal tumours that most commonly manifest on the scalp, neck, and face. They are observed as solitary or multiple tumours. When they manifest as solitary, they are sporadic and not hereditary. When they are multiple, they do so within the Brook-Spiegler syndrome, an autosomal dominant familial disorder, or autosomal dominant familial cylindromatosis.¹

They were initially described by Ansell in 1842. Then, in 1859, Billroth named them cylindromas.² They usually manifest as hard, smooth, pink and slow-growing alopecic nodules, measuring between 0.5 and 0.6 cm.³ Although histopathology is a technique that confirms definitive diagnosis, dermoscopy is of great assistance, especially for differential diagnosis with basal cell carcinoma, epidermal cyst, amelanotic melanoma, among others.

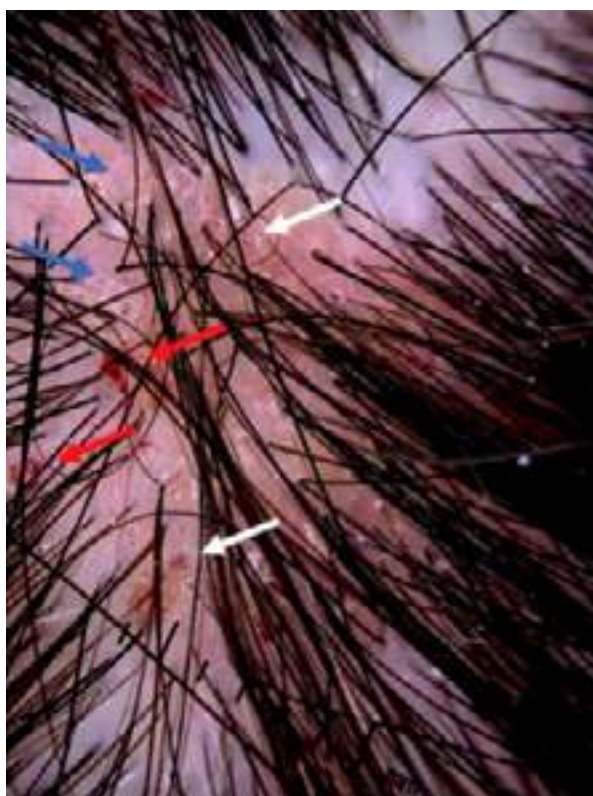
CLINICAL CASE

This is a 54-year-old female patient, with no significant general personal history, who presented with a single lesion located in the anterior and middle portion of the scalp (Picture 1), revealing as pink, soft, non-mobile and slightly painful to the touch, measuring 1 cm in size and 0.5 cm in diameter. The patient refers the lesion was removed two years before, having recurred once. She was not able to specify the date of recurrence.

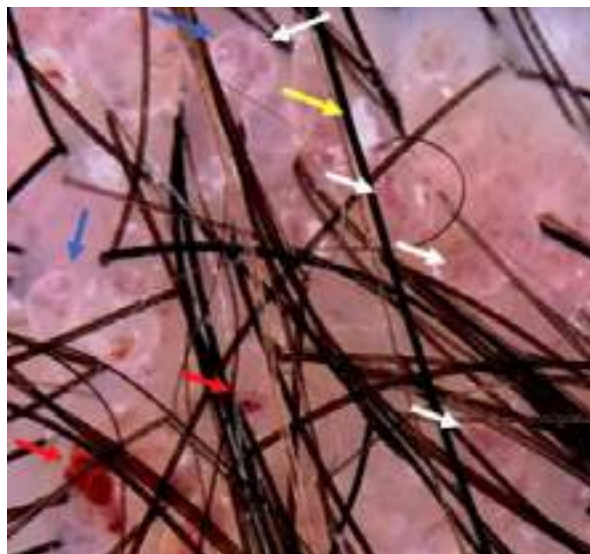
Dermoscopic examination reveals lesion on a pinkish-brown background, with certain areas surrounded by a whitish halo, and the presence of globules, telangiectatic vessels and areas of haemorrhage (Pictures 2 and 3).



Picture 1. Pale pink lesion located in the antero-medial area of the scalp.



Picture 2. Light pink background with presence of blood cells (blue arrow), haemorrhage (red arrow) and telangiectatic vessels (white arrow).



Picture 3. Homogeneous pink and brown areas, multiple blood cells (blue arrow), white area (yellow arrow), telangiectatic vessels (white arrow), and haemorrhage (red arrow).

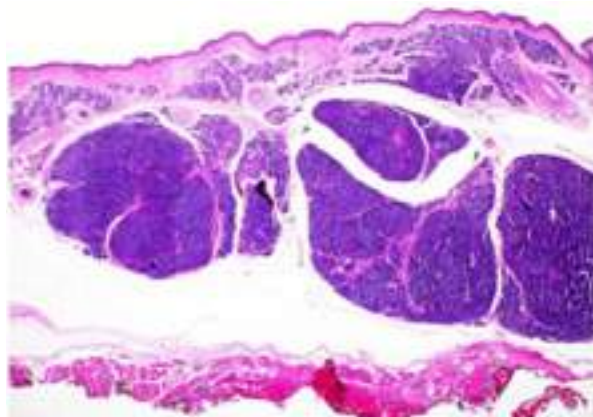
Excisional biopsy of the scalp tumour was performed and entirely submitted for examination. The report is as follows:

Microscopic Examination

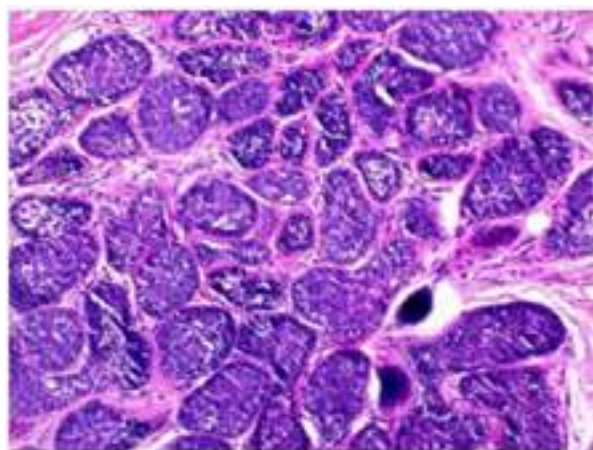
Skin presenting with benign neoplastic proliferation composed of well-defined nests of basaloid cells, surrounded by a prominent basement membrane, also found within the nests. Neoplasm has no contact with the overlying epidermis.

DIAGNOSIS

Excisional biopsy of scalp tumour. -CYLINDROMA.



Picture 4. Benign neoplastic proliferation composed of nests of basaloid cells.



Picture 5. Basaloid cell nests surrounded by prominent basement membrane, also found within the nests.

After total removal of the lesion, the patient was discharged without knowledge of new recurrences.

DISCUSSION

Cylindromas are poorly differentiated adnexal tumours, generally benign from apocrine lineage. The term cylindroma stems from how it is presented when viewed transversely.⁴ They can manifest as solitary or grouped in greater numbers. Preferential location is the scalp. When

proliferated in large numbers in the scalp, it can compromise the entire surface, identifying itself as turban tumour with total or partial hair loss.⁵ Three clinical forms of cylindromas are recognized:

1. Benign cutaneous cylinder that usually presents as isolated lesion.
2. Salivary gland malignant cylindroma.
3. Malignant cylindroma developed within the Brooke-Spiegler syndrome.

Although cylindromas are usually considered to show eccrine differentiation, they can also present with another line of differentiation, in this case apocrine. Apocrine differentiation in at least a part of these tumours is confirmed by the coexistence of cylindromas with follicular tumours, such as trichoepithelioma.⁷

Clinically, cylindromas usually present as slow growing solitary blue or bluish-red papules or nodules, measuring a few mm or cm in diameter.⁶ Cylindromas manifest as part of the Brooke-Spiegler syndrome and can mimic nodular basal cell carcinomas, because the two present with arborizing vessels, both clinically and dermoscopically.⁸ Genetic mutations of the cylindromatosis tumour suppressor gene (CYLD1) on chromosome 16q12-13 play a role in the development of both hereditary and sporadic cylindromas.⁹

Malignant cylindroma is a rare tumour arising from pre-existing benign cylindromas and may present in both solitary and multiple types, although malignant transformation is more frequent within the multiple type. Malignancy is suspected in the presence of rapid growth, ulceration, discolouration or bleeding. Histologically, specific differences are also found.¹⁰

Dermoscopically, cylindromas are characterized by the presence of more prominent vessels at the periphery of the lesion, which allow them to be differentiated from basal cell carcinomas, in which vessels are mostly located at the centre of the lesion. Likewise, a homogeneous pinkish-white background is commonly observed in cylindromas, whereas nodular basal cell carcinomas present with shiny-white structures, bluish-gray ovoid nests and

ulceration. Telangiectasias and unstructured white areas can be seen. Dermoscopically, white lines may represent a dense material similar to the hyaline basement membrane surrounding a circumscribed nest of basaloid cells on histopathology, while the homogeneous pink area correlates with multiple lobes arranged in a compact jigsaw-puzzle pattern and thin-walled blood vessels between the tumour mass and the epidermis, corresponding to telangiectasias.¹¹

In summary, dermoscopically, the patterns reported on cylindromas include arborizing vessels on a light pink background, bluish spots, globules and ulceration.¹

Histologically, they present with clusters of irregularly-shaped basaloid keratinocytes that are connected like puzzle pieces, as well as scattered lymphocytes and small ducts. The hyalinized basement membrane material surrounds the individual clusters in the form of small circular collections between the cluster cells.⁶

The differential diagnosis of the cylindroma is extensive. Basal cell carcinoma must be considered, along with the epidermal cyst, trichilemmoma, trichoepithelioma, basaloid follicular hamartoma, spiradenoma and neurofibromatosis.¹⁰

Treatment. Local excision remains the treatment of choice, but, alternatively, dermabrasion, shave excision with electrodesiccation of the shaved base, ablative CO₂ laser, cryotherapy and radiotherapy have also been recommended.¹²

CONCLUSION

Despite the multiple differential diagnoses mentioned, the main diagnosis to consider should be the nodular basal cell carcinoma. For this reason, the presentation of the case is relevant. Both the clinical and dermoscopic characteristics can lead to diagnostic confusion, and so, the more knowledge of the pathology, the less diagnostic errors. Moreover, dermoscopy allows us to consider the diagnosis of cylindroma.

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