Multiple Moll's Gland Cysts (Apocrine Hidrocystomas) of the Eyelids

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In a 60-year-old obese female, a prolactin-secreting pituitary adenoma had been diagnosed 12 years previously. She was thereafter treated with bromocriptine for 7 years, but the treatment had to be discontinued because of serious side-effects.

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At the time of consultation, physical examination showed multiple symptomless cystic tumours of the free margin of both eyelids (fig. 1) that had developed insidiously at about the same time as the discovery of the pituitary adenoma. The cysts were of variable size and contained a clear fluid that rarely discharged spontaneously. Most lesions included the root of lashes and some presented yellow dots, likely corresponding to sebaceous glands. Some lesions were located on the peri-orbital area. Bromocriptine treatment had no obvious influence on their course.

Palmoplantar keratoderma, hypodontia or hypotrichosis were absent, and the family history was unremarkable. The remaining clinical examination was normal, in particular at the neurological (cranial nerve), ophthalmological and endocrinological levels. Laboratory tests revealed high prolactin levels (16,880 U, normal < 715 U), but the remaining concentrations concerning the thyroid gland, adrenals and gonads were normal. Magnetic resonance imaging showed a pituitary adenoma measuring 32 mm in diameter extending to the sphenoidal sinus and the cavernous fossa; however, this had remained unchanged as compared to the latest examination in 1991.

All ocular lesions were excised. Histological examination showed, underneath a flattened epidermis, multiple round or oval-shaped cystic cavities of variable size, lined by a thin wall, consisting of 2-4 layers of cuboidal cells. Most cysts contained a granular PAS-positive material; some of them contained loose lamellar keratin. The surrounding dermis contained dilated

capillaries and a sparse inflammatory mononuclear-cell infiltrate. Immunohistochemical staining showed the epithelial cystic wall to express epithelial-membrane antigen but not carcino-embryonic antigen. Ultrastructural examination was consistent with the diagnosis of apocrine hidrocystomas. The patient has been followed for the last 2 years and no relapse has been noted. Cystic lesions of the free margin of the eyelids are usually referred to as 'Moll's gland cysts' [1] or apocrine hidrocystomas [2]. These lesions are usually located around a lash; their size is variable and may be large [3, 4]. The cysts are usually acquired; in that case, they are solitary or found in small numbers (2 or 3). They do not seem to be influenced by seasonal variations or heat as opposed to eccrine hidrocystomas. Their evolution is chronic; spontaneous discharge of the content of the cysts is rare and relapses are the rule. Histologically [1,2] these cysts look similar to apocrine hidrocystomas, i.e. they are lined by a flattened wall, occasionally exhibiting intracavitary papillary projections. Two types of cells are found within the wall: keratinizing cells with keratohyalin granules, accounting for the presence of keratin within the cavity, and apocrine-secretory cells with a microvillous surface [1]. This double cell population appears characteristic of Moll's glands and can be explained by either atrophy of the glandular part and hyperplasia of the keratinizing isthmic portion, or by squamous metaplasia of the glandular zone. This allows the distinction from other types of cysts, such as epidermal and trichilemmal cysts. Eccrine hidrocystomas may be more difficult to differentiate from Moll's gland cysts, but eccrine glands are not present on the free margin of the eyelids [1].

Our patient fulfilled the clinical, light- and electron-microscopic criteria of Moll's gland cysts. Exceptional features of our case are the multiplicity of the lesions as well as their large size. Similarly to apocrine hidrocystomas, translucent cysts of the eyelids are usually solitary: in a reported series of 42 patients [2] only 1 had multiple (4) lesions. Multiple cysts of small size (1-3 mm) may be encountered in the course of the Schöpf-Schulz-Passarge syndrome [5], a rare ectodermal dysplasia disorder, also featuring palmoplantar keratoderma, hypotrichosis and hypodontia. Despite the existence of rare sporadic

Fig. 1. Multiple cysts on the free margins of the eyelids.

cases [6] and the fact that lesions may appear during the fourth decade of life [5], the Schöpf-Schulz-Passarge syndrome is a hereditary disorder and our patient presented no other feature of this syndrome.

Moll's gland cysts seem to be secondary to a retentional rather than a proliferative mechanism. The retention could be due to an obstruction of the excretory duct secondary to inflammation or proliferation, or to the presence of a horny plug [1]. In our patient, the unusual multiplicity of the cysts may be related to the long-lasting hyperprolactinaemia. Prolactin belongs to the group of cytokines acting as growth factors and is known to stimulate the proliferation of epithelial

cells in various organs [7]. Specific prolactin receptors have been demonstrated on the surface of keratinocytes, and a dose-dependent stimulating effect of prolactin on cultured keratinocytes has recently been shown [8].

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