



ECCRINE HIDROCYSTOMA OF THE NOSE – A CASE REPORT

Plastic Surgery

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ABSTRACT

Hidrocystomas are rare benign tumours of apocrine or eccrine epithelium. They most commonly occur on the head and neck region, especially the periorbital of the face. Eccrine hidrocystomas (EH) are small pigmented benign cystic lesions that normally affect only adult females. Histologically, eccrine hidrocystoma consists of one or more partially collapsed unilocular cysts in the dermis, and these cysts are often situated adjacent to normal eccrine ducts. Pigmented hidrocystomas may be mistaken for other skin lesions like pigmented basal cell carcinoma and melanoma and a biopsy readily establishes the diagnosis. Surgical excision with primary closure or local flap cover is the treatment of choice.

KEYWORDS

Benign, Eccrine hidrocystoma, Nose, Solitary, Surgical excision

INTRODUCTION

Hidrocystomas are cystic benign adnexal tumours. They are classified into two types, namely apocrine and eccrine hidrocystomas according to their histological and presumed histogenetic derivation. In 1973, Smith and Chernosky described another group of patients who had predominantly solitary or few lesions, the majority occurring in males. (1) These two different types of presentations are called the "Classic Robinson" and "Smith and Chernosky" types of hidrocystomas. Eccrine hidrocystomas were first described by Robinson¹ in 1893. (2) Eccrine hidrocystomas are benign cysts with eccrine differentiation and occurs as a result of dilated ducts of mature eccrine sweat unit. They may be multiple or solitary. EHs characteristically appear as skin-colored to bluish vesiculopapular lesions, and most commonly on the periorbital area, and these lesions predominantly occur in middle-aged and elderly women. (3,4) EH is a benign small cystic lesion that usually enlarges during the summer and may disappear spontaneously in cooler weather. (1) It is characterized by a chronic course and summer aggravation. (5) Lesions are usually multiple (Robinson type), affecting the face in middle-aged women. (6)

Case Report

55 year old lady presented to us with complaints of a swelling of the nasal tip for the past 7 months. It was spontaneous in onset and gradually progressed to the present size. There was no history of trauma, fever, discharge or ulceration. On examination, a non-tender swelling of size 2 x 1 cm over the nasal tip was seen with a nodular surface, not mobile with regular margins and fixed to the overlying skin. (Fig. 1) There was no regional lymphadenopathy. A clinical diagnosis of a nodular basal cell carcinoma nose was made. We planned for excision biopsy with nasolabial flap cover. Under general anaesthesia & aseptic precautions, marking done 0.5 cm around the swelling. (Fig. 2) The swelling was excised with adequate margin of 0.5 cm all around and sent for frozen section which was reported as benign. (Fig. 3) We then proceeded with a nasolabial flap cover from the left side. (Fig. 4) Planning in reverse was done, incision made and

deepened in layers. The flap was elevated and inset given with 4-0 nylon after securing haemostasis. The donor site was closed primarily in layers with 3-0 polyglactin and 4-0 nylon. (Fig. 5) A sterile non adhesive dressing was applied. Histopathology revealed skin and underlying dermis showing a cyst lined with bilayered epithelium with luminal columnar epithelium lined with basal myoepithelial layer surrounded by sebaceous glands and hair follicles, suggestive of a benign adnexal neoplasm – eccrine hidrocystoma. The patient was on regular follow-up and the flap was divided after 3 weeks and inset was given. (Fig. 6)



Fig. 1 – Clinical picture showing the lesion

Fig. 2 – Marking showing excision margin and nasolabial flap



Fig. 3 – Defect after excision

Fig. 4 – Nasolabial flap elevated



Fig. 5 – Immediate post-operative picture

Fig. 6 – Picture after flap division & inset

DISCUSSION

Hidrocystomas are benign dermal cysts that present as apocrine or eccrine derivation. EH usually presents as a small, cystic, translucent, nodule that is 1 to 3 mm in diameter, often having a bluish hue. (4) They are predominantly occurred in adult females from the 3rd to 7th decade, occurring as single or multiple lesions mostly located on the periorbital and malar regions. (3,7) Eccrine hidrocystomas are uniloculated cysts characterized by 1 to 2 layers of smooth cuboidal or flat epithelial cells with eosinophilic cytoplasm. (6,8,9) Eccrine hidrocystomas tend to be smaller than apocrine hidrocystomas. EH is currently classified into two types based on the number of lesions, one being the Robinson type, occurring in women working in hot and humid environments. (2,10) Their lesions were characterized as having multiple small papules. (2) The other group were of the Smith and Chernosky type whose lesions were primarily solitary. (1) The individual lesions of the multiple type are similar to the solitary lesions of the Smith type, except they are smaller. (11) Tokura et al. suggested solitary EH is derived from the secretory coil, and the multiple ones are derived from the duct. (12)

Multiple eccrine hidrocystomas have been associated with Parkinson's disease and Grave's disease due to hyperhidrosis. (7,13) The etiology of multiple EH remains unknown, but may be due to the occlusion of the intradermal portion of the eccrine duct. (14) Murayama et al. suggest that EH is a hamartoma-like disorder that becomes more pronounced as a result of retaining sweat. (15) Eccrine hidrocystomas can be distinguished from apocrine hidrocystomas; they lack decapitated columnar epithelium or flattened, vacuolated myoepithelial cells. In contrast to eccrine hidrocystomas, apocrine hidrocystomas are often multiloculated and their secretory cells contain PAS positive diastase-resistant granules. (16) Positive staining for melanin with Fontana-Masson or S-100 has been reported in solitary eccrine hidrocystoma but not in the Robinson type. Usually, S-100 protein is only found in the secretory cells of eccrine glands, indicating that solitary eccrine hidrocystomas arise from the secretory part of the eccrine gland and the Robinson type arises from the ductal part. (12) Dermatoscopy evaluation of an eccrine hidrocystoma reveals a bluish papule surrounded by several telangiectasias. (17) Biopsy establishes the diagnosis and the lesions seldom recur after removal. The treatment options can be divided into medical and surgical methods. Multiple lesions have been treated with topical scopolamine, topical atropine and botulinum toxin type A. (18-20) Using a 585-nm pulsed dye laser has resulted in good outcomes when treating multiple EHs. (21) Electrodesiccation or other local destructive methods are useful but run the risk of scarring. (22) Surgical excision for solitary lesions is the treatment of choice.

CONCLUSION

Eccrine Hidrocystomas are benign lesions of sweat duct epithelium presenting as single or multiple lesions. They are generally asymptomatic. They usually appear as small macules ranging in size from less than 1mm to 2mm in diameter. Dermatoscopy if available or an excisional biopsy results in not only removal of tumour but tissue for evaluation and establishment of the diagnosis.

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