Quiz

Multiple translucent papules on the face of a middle-aged woman

A 56-year-old woman presented with a 12-year history of multiple, small, asymptomatic, elevated skin lesions involving her periorbital areas and cheeks. She had a history of worsening of the skin lesions in the summer and on exposure to heat. Relative improvement of the lesions used to occur in the winter. There was no family history of similar condition. She had no other history of systemic ailment. Examination revealed numerous, skin-colored, tense cystic lesions, ranging in size from 2 to 3 mm in diameter, distributed symmetrically on her periorbital areas and cheeks. Simple puncture of the individual lesion with a sterile needle exuded small amount of serous clear fluid. [Figures 1 and 2] Histopathological examination was undertaken. [Figure 3]

WHAT IS YOUR DIAGNOSIS?

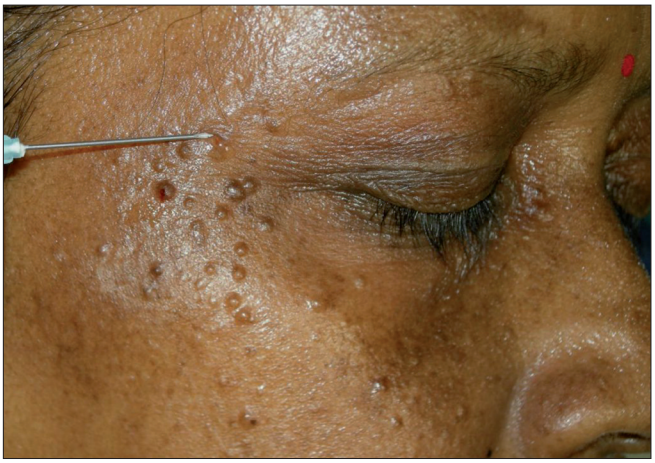

Figure 2: Puncture of a representative lesion with a sterile needle shows exudation of clear fluid

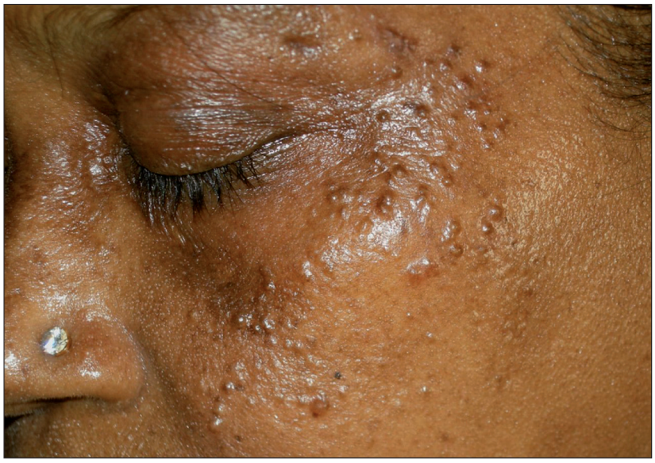

Figure 1: Multiple skin-colored, tense cystic lesions on cheeks and periorbital area

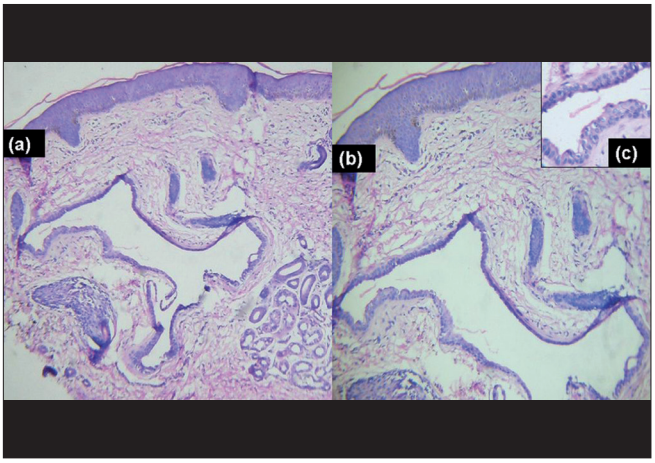

Figure 3: (a) Normal epidermis with a solitary cyst in the dermis (H and E, ×40). (b) The cyst-wall is lined by cuboidal cells (H and E, ×100). (c) Higher magnification demonstrates the cyst lining is composed of 2–3 layers of flat cuboidal epithelium (H and E, ×400)

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DIAGNOSIS

Multiple eccrine hidrocystoma (Robinson type).

Histopathological examination revealed a unilocular cystic structure within the dermis. The cyst-wall consisted of flat epithelium partially lined by two layers of cuboidal cells. There was no secretion upon decapitation on serial sections. No connection between the cyst and the epidermis was observed [Figure 3].

DISCUSSION

Eccrine hidrocystoma (EH) is a rare benign cystic lesion of the eccrine sweat ducts. Cystic papules of about 1–3 mm in diameter usually appear in the periorbital area of middle-aged or elderly women.[1] The head, trunk and popliteal fossae may also be affected rarely. Characteristically, the lesions worsen in the summer and improve in winter.[1] Robinson first described eccrine hidrocystoma in 1893.[2] Most of his patients were women working in hot and humid environment and had multiple facial lesions. In 1973, Smith and Chernosky reported another group of patients, of whom 40% were men, who most commonly had a solitary lesion.[3] These two clinical presentations have become known as the "classic Robinson" and the "Smith and Chernosky" types of hidrocystoma.[4] The pathogenesis of EH is still not clear. Various hypotheses of retention of sweat have been put forward, including[5] poral closure leading to secondary dilatation of sweat duct, adenomatous proliferation of the excretory duct, or the presence of an abnormal nature of eccrine sweat glands. The cyst is thought to be originated from the ductal part of eccrine sweat gland.[5] "Classic Robinson" type of EH, occurring in housewives exposed to the hot and humid environment of household work in a tropical climate, has also been reported in the literature.[6] Apocrine hidrocystomas (AH) often pose a real problem in clinical and histopathologic differentiation from EH. However, AH are often larger in size, bluish in color, and have less potential for periorbital distribution. Furthermore, unlike eccrine hidrocystomas, apocrine hidrocystomas do not present with numerous lesions and do not show climatic variations with regard to symptoms, size, and number of skin lesions.[4] Histopathologically, eccrine hidrocystomas are lined by ductal cells which significantly differ from apocrine hidrocystomas. Eccrine hidrocystomas are usually unilocular, whereas apocrine hidrocystomas are multilocular. In contrast to AH, decapitation secretion, periodic acid Schiff-positive and diastase-resistant granules in secretory cells and myoepithelial cells are absent in EH.[4] It also important to differentiate EH from sebaceous and epidermal inclusion cysts, cystic pigmented type of basal cell carcinoma, and milia.[5] There is no definitive treatment of EH. Avoidance of a hot and humid environment may prevent worsening of the condition. Most hidrocystomas are solitary and can be treated by simple surgical excision. In view of the large number and location of the lesions in Robinson type hidrocystomas, conventional surgical excision is unsuitable. Simple needle puncture produces only temporary improvement. The successful use of topical preparations of atropine,[1] scopolamine,[5] and glycopyrrolate[7] has been reported in a limited number of cases. Successful treatment of eccrine hidrocystomas with botulinum toxin A has also been described recently.[8] Laser (585-nm flash lamp-pumped pulse dye laser) appears to be a viable and efficient form of treatment of EH, as there is a lower risk of scarring than with surgical intervention.[9] Electrocautery with a fine tipped probe may also be effective.

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