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Case Report

Multiple trichoepithelioma: A case report

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Abstract Multiple trichoepithelioma is a skin tumor disease caused by mutation in the CYLD gene on chromosome 16 which is inherited through an autosomal dominant manner. This disease mostly occurs in female population aged 10 to 20 years. Treatment for this disease including: excision of the lesion or ablation modalities with electrosurgery, cryosurgery and laser or topical imiquimod. A 9-year-old woman was diagnosed with multiple trichoepithelioma through anamnesis, physical examination and dermoscopy, which revealed a millia-like cyst and telangiectasia on one of the lesions from patient's face. Electrosurgery was performed to partially remove the lesions on the patient's face. The patient then being given an antibiotic cream as a postoperative wound care. Multiple trichoepithelioma is a benign tumor which is a variation of cribriform trichoblastoma with differentiation from infundibulocystic. Multiple trichoepithelioma presents as painless multiple well-defined skin-colored, pink, or bluish papules, mostly on the face symmetrically. Electrosurgery was performed in this case. On the 36th day of observation, there were no postoperative complications or new papules. We report a case of multiple trichoepithelioma in a 9-year-old girl who was treated with electrosurgery.

Key words
Multiple trichoepithelioma, electrosurgery, dermoscopy.

Introduction

Multiple trichoepitelioma is a benign skin tumor that is rarely found and originates from hair follicles. Multiple trichoepitelioma is caused by a mutation of the CYLD gene on chromosome 16 that is inherited through autosomal dominant pattern. This disease usually occurs in young women aged 10 to 20 years.[1,2] Multiple trichoepitelioma appears as a painless, firmly bound papule of skin, with pink or multiple bluish appearance, mostly on the face symmetrically.[1,3] Supporting examinations which can be performed are including dermoscopy and histopathology examinations. Dermoscopy examination shows arborizing vessels and millia-like cyst formations.[3] Treatment in this case could be established through excision surgery, electrical surgery, radiofrequency ablation, dermabrasion, frozen surgery or laser therapy.[1-3]

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Case report

A 9-year-old woman with a chief complaint of reddish papules on face that slightly itchy. Priorly, papules appear in both of nasal folds which are painless and spread to the cheek area. The patient's mother said only patient experienced complaints like this. On physical examination of the face area, we found multiple erythematous to skin-collored papules, tender consistency, no erosion or scales found. Through dermoscopy examination performed on the left cheek of the patient, we found a millia-like cyst and telangiectasis on the papules.

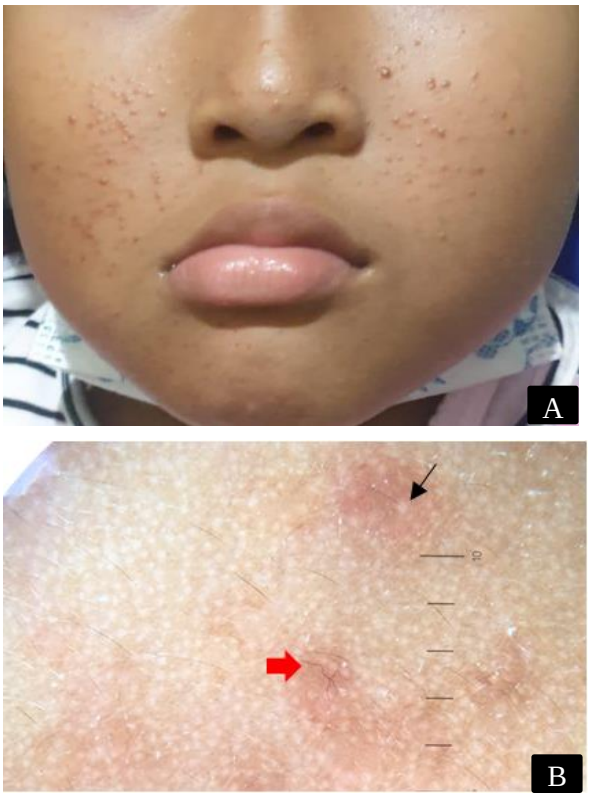

Figure 1 Lesions on the patient's face before therapy (A). Dermoscopy of lesions on the patient's left cheek showed millia-like cyst (black arrow) and telangiectasis (red arrow).

Electrosurgery was performed to remove part of the lesions on the patient's cheek area. Prior to electrosurgery being performed, the patient was given local anesthesia with Emla® cream (Lidocaine 2.5% and Prilocaine 2.5%). Post electrosurgical treatment in this patient was 2% fusidic acid antibiotic cream applied to the wound. On the observation of the 36th day, there were no findings of hypertrophic scars or new papules.

Discussion

Multiple trichoepitheliomas appear as multiple painless, well-defined skin-colored, pink or bluish papules symmetrically on the face.[1,4] Density of skin lesions is most prominent in the central areas of the face (nose, nasal folds, cheeks), but trichoepithelioma lesions it can also occur in areas such as the forehead, ears and

Figure 2 Patient's face post-electrosurgery (A) and on 36th day post electrosurgery (B).

eyelids. Several cases have reported involvement of the scalp, neck and upper trunk.[4,5]

Diagnosis of multiple trichoepitelioma in this patient was established through anamnesis, physical examination and supporting examination by dermoscopy, in which we found millia-like cyst and telangiectasis formation. However, such dermoscopy images can also be found in basal cell carcinoma. Dermoscopy of basal cell carcinoma includes arborizing vessels, blue-grey ovoid nests, multiple blue-gray globules and leaf-like structures.[5,6] Histopathological examination is required to determine certain diagnosis. Histopathological examination of trichoepitelioma shows keratin cysts and basaloid cell groups in the form of solid formations and adenoids surround them.[6,7] Whereas findings in basal cell carcinoma including large nest of basaloid cells in the papillary or reticular layer of the dermis and

found retraction from stroma and peripheral palisading, ulceration could also appear.[7] Histopathological examination was not performed on this patient because the patient's parents refused to do a biopsy on the patient, however, assumptions of malignancy in this patient were declined considering the patient's young age, the development of lesions is quite slow and the number of lesions were multiple.

Treatment in this case which are available including excision surgery, electrical surgery, radiofrequency ablation, dermabrasion, frozen surgery and laser therapy.[8,9] There were some reports using topical agents such as sirolimus 1%, imiquimod 5% or orally using vismodegib, aspirin and subcutaneous injection with adalimumab, but all of them gives partial to none response towards clearing the lessions.[10] Although, recently there was a first case report of successful multiple trichoepithelioma treatment using benzoyl peroxide 2,5% which is worth challenging for future treatment of multiple trichoepithelioma because of it's safety profile and easy application.[11] Complications which can be occurred are: pain, bleeding, scars and recurrence of lesions.[9,10] In this patient, electrosurgery were selected with topical anesthetic by applying Emla® cream (Lidocaine 2.5% and Prilockain 2.5%) 30 minutes before treatment. Electrosurgery was performed on part of the lesions on the area of both cheeks of the patient and post-action observations were carried out to observe the response of the procedure in this patient. No bleeding occurred during the electrosurgery process in this patient. Post-surgery treatments in this patient were application of 2% fusidic acid antibiotic cream on the wound and hygiene maintenance of the wound to prevent secondary infections and promote wound healing. On the 36th day post-treatment, the response was good, shown by complete resolution from electrosurgery wound, no hypertrophic scars or new lesion were found. The prognosis of trichoepitelioma is commonly good, recurrence of lesions after excision is mostly rare.[1-3,9] Education was given to the patient's mother, explaining about the possibility of new papules occurrence when the patient gets older, so the patient's mother is encouraged to visit for further treatment if the papules in the patient expanded numerously.

Conclusion

We reported a case of multiple trichoepithelioma in a 9-year-old girl who was treated with electrosurgery. There was complete resolution from electrosurgery wound, no hypertrophic scars or new lesions were found.

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