

CASE REPORT

Focal Epithelial Hyperplasia (FEH, Heck's Disease) in immune-competent Qatari child

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CASE REPORT

A 7-year old male Qatari child presented with lesions in the buccal mucosa of seven months duration. He had no previous medical illness, no history of similar condition in the past. The developmental history was normal, and there were no signs or symptoms of immune deficiency. Family history was also negative. On examination the main site of involvement was the oral mucosa. The left side showed more lesions than the right side. The lesions were whitish to pink in colour, in the form of plaque 5x3 cm. Started as discrete papules 2 to 6 mm, and then became confluent. They were soft, painless exophytic and flat-topped (Fig. 1A). The case was clinically diagnosed as focal epithelial hyperplasia. Biopsy specimen was surgi-



Fig. 1A Multiple soft, pink, non-inflammatory exophytic, flat topped 2 to 8mm papules on the left side of labial mucosa.

cally removed from the inner aspect of the lower lip under local anesthesia. H & E stained section showed papillomatosis and acanthosis and koilocytic cells with perinuclear halo (Fig. 1B and 1C). No inflammatory cells in the dermis. The speci-

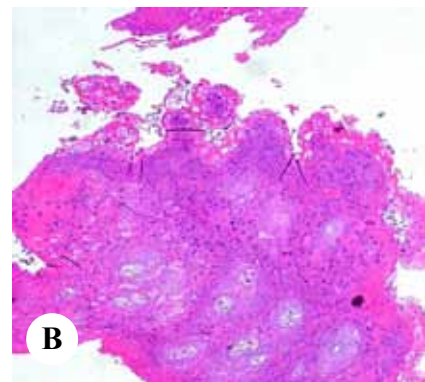


Fig. 1B H &E stained section showing profound papillomatosis and acanthosis in the mucosal epidermis (X 100 Magnification).

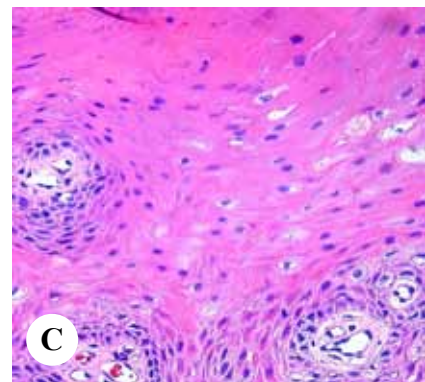


Fig. 1C H &E stained section showing acanthosis and koilocytosis (X 400 Magnification).

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men gave positive staining by Autostainer Link 48, Dako (immunoperoxidase stain); that reacts with a major capsid protein of HPV-1 and broadly expressed in different HPV phenotypes. The diagnosis was confirmed by clinical and pathological correlation. DNA in-situ hybridization for HPV typing was not available at our lab. The condition was treated with topical silver nitrate 75% therapy. Applicator sticks was applied every other day for 3 weeks and showed complete recovery. Patient was followed for 6 month with no recurrence.

DISCUSSION

Focal epithelial hyperplasia or Heck's disease was first described in 1965 by Archard *et al.*, (including Heck).¹ After four years the evidence of viral infection was found.² It was first reported in young Indians and Eskimos,¹ then later in older patients and among other races and places.^{3,4} However; the number of reported cases is still quite low worldwide. Human papilloma virus HPV was first isolated in 1981 from the lesion of Focal epithelial hyperplasia. Type 13 was detected in 1983; while the other type (Type 32) was detected six years later.⁵ Factors that determine disease susceptibility are unclear, but genetics, and having the human lymphocytic antigen-DR4 (DRB1*0404) allele in particular, are thought to play a major role in disease vulnerability.⁶ Oral condyloma acuminatum and oral verruca vulgaris are two closely related entities, but slightly different in clinical and histological features. Both types of lesions are caused by mucosal HPV; oral condyloma acuminatum is caused mostly by HPV 6, HPV 11, and HPV 16. Oral verruca vulgaris are rarer and are caused by cutaneous HPVs (HPV 2, HPV 4, and HPV 57). Focal epithelial hyperplasia of the oral cavity (Heck's disease) is caused predominant-

ly by HPV 13 and HPV 32 and tends to regress spontaneously.⁷ The diagnosis of Focal epithelial hyperplasia (FEH) can be made only clinically; however, histological examination is confirmatory especially if characteristics of viral infection papillomatosis and acanthosis and koilocytic cells are present. Viral identification by in-situ hybridization or PCR analysis was recently added to the tools of diagnosis. Though claimed to be self limiting; several treatment modalities such as surgical excision, laser ablation, cryotherapy, electrocauterization, topical trichloroacetic acid, topical retinoic acid and imiquimod have been used with many successful though inconsistent results and variable side effects.^{8,9} The therapy used in this case was successful though old one. Side effects were minimal; it was well tolerated, administered at home by the parents. Transient teeth pigmentation started to appear after two weeks of therapy on the lower incisors, however, with careful application by the end of therapy it disappeared in three weeks. In conclusion, we report a case of focal epithelial hyperplasia in a Qatari child, successfully treated with topical silver nitrate sticks application with no recurrence.

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