

## FOX-FORDYCE DISEASE

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Four patients having Fox-Fordyce disease presented with pruritic papular lesions in the apocrine gland-bearing areas for two to five years duration. All patients had received systemic and topical antifungal and corticosteroids intermittently without significant improvement. Contraceptive pills however gave relief to female patients.

**Key words :** Fox-Fordyce disease.

Fox-Fordyce disease, first described by Fox and Fordyce in 1902, is an uncommon but characteristic disease. The intensely pruritic lesions are situated in the axillae, areolae of breasts and the pubic region. Less commonly, umbilical region, labia and perianal areas may also be involved.<sup>1</sup> It is seen in sexually active women.<sup>2</sup> Though some males and even post-menopausal women have been reported to have this disease.

### Case Reports

Four cases of Fox-Fordyce disease were seen over a period of two years. There were two males and two females. Their ages ranged between 17 and 25 years. The duration of pruritic papular lesions varied from 2 to 5 years with the average of 4 years. The lesions were seen in the axillary area in all the four. Peri-umbilical area and pubic region were involved in 3 and 1 case respectively. Female patients had experienced periodic variations in the signs and symptoms. Histopathological examination in all the cases showed, keratotic plugging, cystic dilatation of apocrine glands containing secretory casts at two places, and lymphocytic infiltration in the stroma (Fig. 1). Female patients were given oral contraceptive pills with reduction in itching within 4-6 months.



Fig. 1. Photomicrograph showing dilated apocrine gland vesicles containing secretory casts at places.

### Comments

Fox-Fordyce disease is uncommon. There are only two reports from India.<sup>3,4</sup> Though the exact aetiology of Fox-Fordyce disease is not known, endocrinal factors are considered significant as the disease is commonly seen in females during their active reproductive life with variations in the signs and symptoms and favourable response to oral contraceptive.<sup>2,5,6</sup> The basic defect in the aetiopathogenesis of Fox-Fordyce disease is formation of the keratotic plug at the opening of the apocrine sweat gland. Secondary dilated peripheral tubules are partially or completely filled with secretory casts. Management of Fox-Fordyce disease is neither simple nor satisfactory.<sup>7</sup> The only beneficial therapeutic

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approach is the use of oral contraceptive pill therapy in females when given cyclically.<sup>2,5</sup> Erythema doses of ultraviolet rays may eliminate the keratotic plug restoring the patency of the duct with beneficial effects.<sup>7</sup> Electrocoagulation of the apocrine glands was also used with considerable success in the treatment of Fox-Fordyce disease.<sup>4</sup>

#### References

1. Montes LF, Cortes AC, Baker BL et al : Fox-Fordyce disease, Arch Dermatol, 1959; 80 : 549-555.
2. Montes LF, Caplan RM, Riley GM et al : Fox-Fordyce disease, an endocrinal study, Arch Dermatol, 1961; 84 : 452-458.
3. Shah CF and Karate SK : Fox-Fordyce disease, Ind J Dermatol Venereol Leprol, 1976; 42 : 6-7.
4. Pasricha JS and Nayyar KC : Fox-Fordyce disease in the post-menopausal period treated successfully with electrocoagulation, Dermatologica, 1973; 147 : 271-273.
5. Kronthal HL, Pomeranz JR and Sitomer G : Fox-Fordyce disease, treatment with an oral contraceptive, Arch Dermatol, 1965; 91 : 243-245.
6. Turner TW : Hormonal levels in Fox-Fordyce disease, Brit J Dermatol, 1976; 94 : 317-318.
7. Pinkus H : Treatment of Fox-Fordyce disease, JAMA, 1973; 223 : 924.