CHAPTER VI

FINE PUNCTATE EPITHELIAL KERATITIS

In the classification of punctate keratitis, Duke-Elder (1965) characterised the fine punctate keratitis as the superficial punctate white or opaque lesions visible without any stain on the cornea. However, the involved cells stain irregularly with fluorescein and rose bengal.

Fine punctate keratitis is seen in many conditions of diverse etiology (table VI-1). In this chapter we shall discuss warts and molluscum contagiosum infections which are two important causes of chronic unilateral keratoconjunctivitis. Other major conditions are discussed under appropriate headings in this report.

TABLE VI-1. — Conditions associated with fine punctate keratitis

a) Bacterial: Staphylococcal blepharoconjunctivitis
b) Viral: Herpes simplex
   Herpes zoster
   Molluscum contagiosum
   Warts
c) Chlamydial: Trachoma
   Inclusion conjunctivitis
d) Allergic: Vernal keratoconjunctivitis
   Drug allergy
e) Photoactinic and irradiational keratoconjunctivitis
f) Dry eyes: Keratoconjunctivitis sicca
   Exposure keratitis
   Keratitis lagophthalmos
g) Iatrogenic: Toxic effects of ocular collyria
h) Unknown etiology: Rosacea
   Superior limbic keratoconjunctivitis

WARTS

Warts (verruca) are common horny growths on skin and sometimes on mucus membranes caused by a member of the papovavirus group. This DNA virus has a cubic symmetry and measures 40 to 55 nm in size. The virus is ether resistant and does not possess an
envelope (Locatcher-Khorazo and Seegal, 1972; Pumper and Yama-
shiroya, 1975). The virus has not been propagated in the laboratory. 
Like other members of the group it is oncogenic.

Epidemiology

Warts spread by direct contact from person to person or by indirect 
contact with contaminated objects. Autoinoculation helps the spread 
of the warts from one body site to another. Man is the only reservoir 
of this worldwide disease. Children and immunosuppressed adults 
are commonly affected.

Pathogenesis and Pathology

The virus enters the skin and remains localized in it. Viremia does 
not occur.

Histological examination of the common wart (verruca vulgaris) 
shows hyperkeratosis with acanthosis, papillomatosis and parakerato-
sis. The granular layer becomes hypertrophied. Large vacuolated cells 
are present in the outer layers of the stratum spinosum and granular 
layer. Cell vacuolation is much more in flat warts (verruca plana) 
while papillomatosis and parakeratosis are rare (Pumper and Yama-
shiroya, 1975). Electron microscopy demonstrates abundant virus 
particles in the affected cells (Strauss et al., 1950; Melnick et al., 
1952).

Clinical picture

Clinically warts are differentiated into many forms depending on 
the site of body involvement and the shape and appearance of the 
lesion. We are concerned here with common warts which may 
appear on any area of the body. They are raised and irregular cauli-
flowerlike epidermal tumors occurring singly or in groups. Warts may 
be one millimeter to several millimeters in size.

Keratoconjunctivitis

Soft pink multiple papillomata having raspberry appearance may 
develop in the lower fornix at the inner canthus (Duke-Elder, 1965). 
Fedukowicz (1978) observed a cornu cutaneum about 3 cm in size, at 
the medial canthus.