

Verrucous lesion on the thumb

STEVEN KOSSARD FRCR

A man develops a slowly growing verrucous plaque, associated with infiltrated nodules and keratin-filled crevices, on his thumb. What is this lesion?

Over a nine-month period, a 79-year-old man developed on his left thumb a progressively enlarging verrucous plaque associated with infiltrated nodules and multiple keratin-filled crevices (Figure 1). The plaque had appeared as a small papule and was initially diagnosed as a wart. Subsequent cultures taken from the surface grew Gram positive bacteria, but the lesion expanded despite anti-biotic therapy. A skin biopsy showed deeply invaginated epidermal-lined canals and cysts extending into the deep dermis. The canals had irregular lobular sheets of keratinocytes that projected into the surrounding dermis and were lined by atypical keratinocytes (Figure 2). Close examination of the surface epithelium showed focal hypergranulosis and vacuolated keratinocytes (Figure 3).

Differential diagnosis

The differential diagnosis for this verrucous lesion with scarring and hyperkeratinisation includes the following.

- **Coral reef scar** is characterised by a cribriform scar with multiple comedones and cysts. It is usually preceded by staphylococcal folliculitis in sun-damaged skin. The skin biopsy is dominated by follicular cysts and scar tissue.
- **Hypertrophic lupus erythematosus** may have a verrucous appearance, but it is usually multifocal and confined to

sun-exposed sites and areas that heal with atrophy. Skin biopsy shows a prominent lymphocytic reaction that hugs the epidermal junction, and direct immunofluorescence is often positive for immunoglobulins.

- **Deep fungal infection, especially chromomycosis**, may have a verrucous appearance but is usually associated with microabscesses. Skin biopsy shows the presence of pigmented fungal spores.
- **Warts** may produce an identical clinical pattern to that of the case above, but they usually lack the induration and nodularity seen in this case. Skin biopsy will show identical viral cytopathic changes to those seen in Figure 3, indicating that papillomavirus was a cofactor in this patient's lesion.
- **Epithelioma cuniculatum (verrucous carcinoma)** is the correct diagnosis. It is a slowly growing, well differentiated squamous cell carcinoma seen most frequently on the feet. The diagnosis may be delayed unless adequate biopsies are obtained, particularly because the dysplastic changes may be confined to the deep edges of the tumour. Surgery remains the main choice of therapy.

Keypoint

Beware of a recalcitrant wart that is indurated and associated with nodules because it may represent a verrucous carcinoma. MT



Figure 1. Verrucous and nodular keratotic lesion on the thumb.

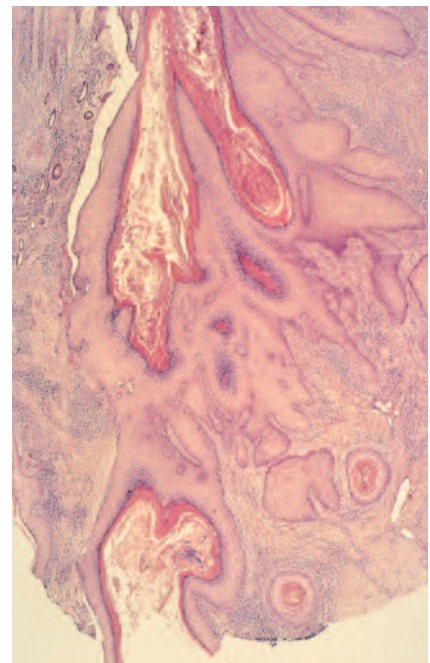


Figure 2. Deeply invaginated epidermal growth with irregular lobules of keratinocytes that extend to the full depth of the biopsy.

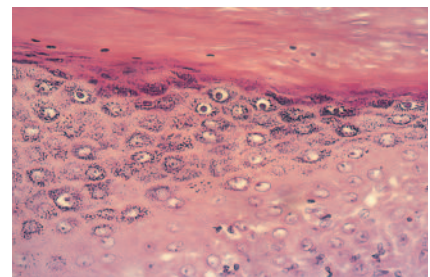


Figure 3. Detail of the epidermal surface. Vacuolated keratinocytes with central nuclei (koilocytes) are seen in the granular layer.

Professor Kossard is Associate Professor, Skin and Cancer Foundation and St Vincent's Hospital, Sydney, NSW.