

# KERATO-ACANTHOMA: AN ILLUSTRATION OF ITS BEHAVIOUR AND SURGICAL MANAGEMENT

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'How poor are they that have not patience!  
What wound did ever heal but by degrees?'  
Shakespeare — *Othello* II, III.

A kerato-acanthoma (*molluscum sebaceum*) is an epithelial tumour, commonly situated in the middle third of the face, most often solitary, and usually benign. The growth is more prevalent in those over 60 years of age. Squamous-cell carcinoma of the skin occurs twice as frequently and basal-cell carcinoma is 8 times as common.<sup>1</sup> The tumour has the habit of growing vigorously, and alarmingly, to reach its maximum size in about 6 weeks, and then resolve. It was for this behaviour that the growth acquired the title of 'self-healing carcinoma'.

Marshall and Findlay<sup>2</sup> expressed the opinion that kerato-acanthoma is derived from the pilar apparatus and that the tendency to spontaneous healing may be due to the fact that the tumour is extruded after a time in the same manner as hairs are from the hair follicle. The unilateral distribution

in a case of multiple lesions (Ferguson-Smith type) led Marshall and Pepler<sup>3</sup> to suggest that the condition might be naevoid in origin. Thomson<sup>1</sup> regarded the changes, whatever the excitant, as neoplastic and connected with the pilo-sebaceous follicle. He attributed the self-healing nature of the tumour to a dilution and destruction of the irritant by the violent reaction of the cells.

In the case here reported the patient, with an unusually large kerato-acanthoma of the nose, was observed over a period of 3 months.

## CASE REPORT

Mrs. M., a naturalized South African born in Holland, and aged 68, was referred to the plastic surgery department of the Johannesburg General Hospital on 24 April 1955. Her story was that 6 weeks before admission she had noticed a small pimple-like elevation on the end of the right side of her nose, that this small lesion was excised in the casualty department of the hospital, and that the wound failed to heal. Out of this area a progressive growth of a tumour-like mass of tissue had occurred.



Fig. 1. Microscopic features of portion of tumour sent for examination. Normal skin is shown on the left and the keratotic plug on the right.

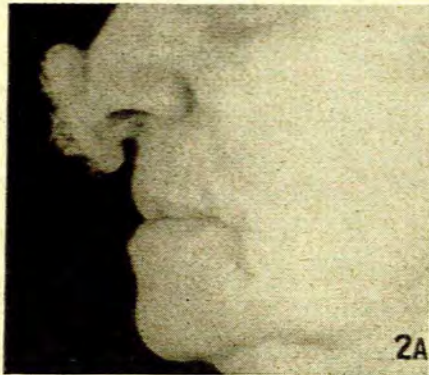


Fig. 2. Kerato-acanthoma of nose 1 month after its maximum size. (A) side view, (B) front view.

Fig. 3. Kerato-acanthoma of nose 2 months after reaching its maximum size.

Fig. 4. Defect in rim of right nostril 3 months after the kerato-acanthoma reached its maximum size.

Fig. 5. Reconstruction of rim of right nostril with a composite graft from ear. (A) front view, (B) side view.

This embossment projected about 1.5 cm. from the end of the right side of the nose, and its diameter was 3 cm. It was a rounded tumour, smooth at the sides, and had a black crust over the distal surface where ulceration had occurred. Firm in consistency, it was attached to the integument intimately and encroached onto the nasal septum. It partially occluded the right nostril. The edges of the ulcerated area tended to roll inwards. Beneath the crusted surface the tumour substance was composed of a solid mass of whitish-grey stringy tissue.

A representative section of the tumour was taken for histological examination on 26 April, 1955 (Fig. 1). The pathologist reported that the tumour was a kerato-acanthoma and that no evidence of malignancy had been found in the section received. A 'tulle-gras' dressing was applied to the surface of the growth. Two weeks later the rolled-in appearance of the edges of the ulcer had flattened out and the surface crust had softened. After 4 weeks the edges of the ulcer had everted and the tumour looked rather like a toadstool (Fig. 2A). The ulcerated surface, originally a shallow depression, had become convex and its area much increased (Fig. 2B). One month later the projection of the tumour had considerably diminished and the ulcerated area had almost encroached on to the base of the lesion (Fig. 3). The intranasal projection had flattened considerably. Three months after the tumour had reached its maximum size, extrusion and disintegration had left a defect in the upper rim of the right nostril (Fig. 4). Throughout its course the lesion was painless.

Mr. D. H. Walker reconstructed the right nostril with a composite graft taken from the rim of the patient's ear (Fig. 5 A and B).

#### DISCUSSION

The expected resolution of the tumour occurred. However, since in this process the papillary body is destroyed, healing involved destruction, scarring, and distortion. In a site such as this, primary excision and reconstruction of the defect is a speedy and precise means of treatment. In other sites, such as the lower eyelid, where scarring might result in ectropion, a similar policy is advocated. Other forms of treatment include cauterization and X-ray therapy. The

cautery may cure the condition but causes destruction and denies a biopsy. X-ray therapy may result in radio-dermatitis or radio-necrosis, particularly if concentrated on nasal lesions.

Although a kerato-acanthoma is usually a benign lesion recent reports have indicated that malignant change may take place.<sup>3,5</sup> An earnest surgical approach is needed to avoid recurrence, as had happened in this patient.

#### SUMMARY

1. An unusually large kerato-acanthoma of the nose observed for 3 months, is reported.
2. Its tendency towards self-healing is illustrated.
3. Illustrated, too, is a plastic surgical technique for the repair of the tissue loss occasioned by resolution of the tumour.
4. The indications for the complete surgical excision of the tumour are emphasized.

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#### REFERENCES

1. Thomson, S. (1958): *Ann. Roy. Coll. Surg. Engl.*, 22, 382.
2. Marshall, J. and Findlay, G. H. (1953): *S. Afr. Med. J.*, 27, 1,000.
3. Marshall, J. and Pepler, W. J. (1954): *Brit. J. Cancer*, 8, 251.
4. Peterkin, G. A. G. (1956): Quoted by Thomson (1958): *loc. cit.*<sup>1</sup>
5. Annotation (1959): *Brit. Med. J.*, 1, 1027.