What is that lump? Soft tissue tumours in Tonga

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Introduction

The Vaiola Hospital in Tongatapu, Tonga serves the main island population of about 65,000 people and receives patients referred from outer islands also. Presentation may be delayed due to remote location, intermittent availability of a surgeon, and certain cultural factors. If there is any delay after the initial consultation patients not infrequently disappear back to their villages or islands without having received treatment. Therefore there is little place for observing a lump over time instead of referring it to a surgeon for excision, remembering that the clinical diagnosis is often inaccurate.

Methods

A retrospective audit of excised soft tissue tumours was performed using the operating theatre record and a file reserved for pathology reports of this group. The audit covered the period 21/1/98 to 16/10/98. Operations were all performed at the Vaiola National Hospital and the majority were performed by the author. Nearly all lesions were submitted for pathological examination. The exceptions were lesions which clinically and on sectioning at the time of removal were clearly lipomas, epidermal cysts or ganglia. Histology was done in Tonga and the more unusual lesions were sent to New Zealand for a confirmatory opinion. Lumps obviously arising from breast, thyroid, parotid or lymph nodes were excluded, as were inguinoscrotal and perianal conditions.

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Results

Over a nine month period 66 soft tissue lesions were removed at the Vaiola National Hospital in Tonga. Only four were malignant, including two melanomas, one sarcoma and one squamous cell carcinoma. There were 42 common or classical lesions, namely epidermal cysts, lipomas, ganglia, compound naevi, and a squamous cell carcinoma. All these were correctly identified preoperatively on clinical grounds. The remaining 24 were unusual lesions or atypical examples of more common lesions. Only four of these were diagnosed or suspected preoperatively. See Table 1

Discussion

Patients in the Pacific often present with pathology which is advanced or rare or unfamiliar to the doctor who practises in the Western world. The cases presented however, consist of many entities which are seen everywhere. It thus serves as a reminder of the differential diagnosis of cutaneous and subcutaneous lesions.

As mentioned certain lesions are not examined histologically. This includes lipomas. However, lipomas are examined if they have a dense or irregular consistency, or if they occur in the neck or occiput where they are frequently less well defined, and as a result may recur due to incomplete excision. In the latter instance a report from the original operation indicating a benign lesion is important. Also typical epidermal cysts are not sent for histology. This includes implantation cysts which are thought to result from trauma and occur in the hands and feet, and "sebacious cysts".

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Keloid is common amongst Polynesians and the author does not remove them routinely. The keloid in this series was excised due to diagnostic uncertainty.

Lesions which could be soft tissue sarcoma are a concern because definitive treatment may involve aggressive wide excision such as compartmental resection or amputation, and occasionally radiotherapy. Therefore diagnosis should be sought by tru-cut biopsy or incisional biopsy. The latter is a reasonable approach in the Pacific because it is less

Table 1. Pathological diagnosis of 66 soft tissue tumours in Tonga, 1998

Pathological diagnosis	Pre-op Dx	No.	Location	Size	Age
CYSTS					
Epidermal cysts - implantation	A	11	Hands/feet		
Epidermal cysts - sebaceous	A	12	All areas		
Ganglion	A	4	Hands/wrists		
BENIGN TUMOURS					
Keloid	C	1	Ear lobe	15mm	32
Vascular - capillary haemangioma	C	1	Face	4mm	4
Vascular - cavernous haemangioma	C	1	Forearm	25mm	58
Dermatofibroma	C	1	Shoulder	8mm	22
Cystic hygroma	A	1	Neck	50mm	12
Lipoma	A	11	All areas	1-10cm	
Angiolipoma	C	1	Chest	15mm	54
Schwannoma	C	2	Knee	20mm	32
	C		Chest	20mm	41
Elastofibroma	C	1	Chest wall	55mm	71
Nodular fasciitis	B	1	Arm	60mm	7 mth
Compound naevus	A	4	Face (3)	<7mm	
	C		Chest (1)	4mm	
Eccrine acrospiroma	C	1	Thigh	7mm	43
Trichilemmal cyst	C	1	Scalp	50mm	60
Pilomatrixoma	C	1	Cheek	20mm	45
Giant cell tumour of tendon sheath	C	1	Hand	40mm	23
MALIGNANT TUMOURS					
Squamous cell carcinoma	A	1	Temple	60mm	50
Melanoma	B	2	Sole of foot	20mm	53
	B		Sole of foot	30mm	64
Sarcoma - spindle/epithelioid	C	1	Leg	45x15cm	46
MISCELLANEOUS					
Filarial lymph node	C	1	Arm	50mm	51
Milker's nodule (Orf virus)	C	1	Forearm	50mm	39
Gouty tophus	C	1	Forearm	35mm	53
Thyroglossal cyst remnant	A	1	Submental	20mm	3
Inflammatory mass (? old osteomyelitis)	C	1	Forearm	40mm	29
Ectopic breast tissue	C	1	Suprapubic	20mm	46
Total		**66**			

Key. A = correct pre-operative diagnosis. B = diagnosis suspected. C = not diagnosed pre-operatively

likely to result in inadequate tissue sampling with delayed diagnosis and treatment. The incision should be located so that it can be excised at the time of the definitive operation, ie. usually longitudinally placed.

Three patients from this series warrant elaboration in this context. The first patient was a seven month old with two adjacent lumps in the bicep region. Preliminary incisional biopsy suggested a benign condition. The subsequent excision included a wide margin of tissue including adjacent fascia and fat but preserving the neurovascular bundle. The final diagnosis was nodular fasciitis. The second case was a lesion against the rib cage near the scapula. At operation the lesion was found to be very solid, irregular and attached to ribs. It proved to be an elastofibroma. The third case was an enormous swelling of the left knee and calf of nine months duration with an earlier biopsy which suggested a chronic inflammatory condition. A high above knee amputation was performed and the final diagnosis was a 45 x 15 cm malignant spindle and epithelioid neoplasm of uncertain origin.

This illustrates the predominance of acral-lentiginous type of melanoma amongst dark skinned people, and the aggressive nature of that type.

Four pigmented lesions were removed. Three were compound naevi on the face removed for cosmetic reasons. The fourth was on the chest adjacent to an enlarged axillary lymph node, and metastatic melanoma was considered a possibility. However the lesion proved to be a compound naevus and fine needle aspirate of the node was clearly benign, ie. a reactive node.

Four patients with melanoma were seen this year. Two presented as foot ulcers and were excised widely. One was Clarke's level IV, 2.9mm thick and the other was Clarke's level V, 9mm thick. The other two patients were seen with groin metastases, having had foot lesions excised previously. One of these had pulmonary metastases as well. The other had no other detectable metastases and underwent block dissection of the groin. This illustrates the predominance of acral-lentiginous type of melanoma amongst dark skinned people, and the aggressive nature of that type.

Summary

The differential diagnosis of a lesion in or deep to the skin constitutes a long list, many of which are impossible to identify clinically. All lumps should be referred to a surgeon. Appropriate work-up and staging should be done in the case of a lesion with suspicious features. Melanoma should be considered for any non-healing foot ulcer.

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References

Available from author on request.

Surgery does the ideal thing ... it separates the patient from the disease. It puts the patient to bed and the disease in a bottle.

L. Clendening (1884 - 1945) in Modern Methods of Treatment