

BENIGN TUMOURS OF HAND

Easy

**SUBMITTED FOR PARTIAL FULFILMENT
OF MASTER DEGREE OF
ORTHOPAEDIC SURGERY**

By

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1985

ACKNOWLEDGEMENT

I wish to express my thanks and deep gratitude to Professor Dr. Ahmed Z. El Sobky, Professor of Orthopaedic Surgery, Ain Shams University, for his consistent supervision, valuable suggestion, sound advice and above all for his moral support.

I am also so grateful to Dr. Youssry M. Mousse, Lecturer of orthopaedic surgery Ain Shams University for valuable assistance and sincere guidance which he offered throughout this work.



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MAY PARENTS
AND MAY WIFE ...

Kamal

CONTENTS	PAGE
I- INTRODUCTION .	I
2- CLASSIFICATION OF BENIGN TUMOURS OF HAND .	3
3- DIAGNOSIS OF BENING TUMOURS OF HAND .	6
4- TUMOURS OF ECTODERMAL ORIGIN:-	
- TUMOURS ARISING FROM EPITHELIUM.	18
- TUMOURS ARISING FROM NERVOUS TISSUE.	24
5- TUMOURS OF MESODERMAL ORIGIN:-	
- TUMOURS ARISING FROM FIBROUS TISSUE.	32
- TUMOURS ARISING FROM FATTY TISSUE.	35
- TUMOURS OF MUSCLES.	36
- TUMOURS OF SYNOVIAL TISSUE.	37
- TUMOURS OF BLOOD AND LYMPHATIC VESSELS.	43
- BONE TUMOURS.	60
6- TUMOURS LIKE CONDITION.	97
7- TUMOURS OF UNCERTAIN ORIGIN.	117
8- SUMMARY.	119
9- REFERENCES.	121
0- ARABIC SUMMARY.	132

I N T R O D U C T I O N

Any tumour that may arise in an extremity may also occur in the hand. Some tumors such as lipoma are found in the proximal part of the extremities but rarely in the hand. Conversely, glomus tumors seen far more frequent in the hand than elsewhere (McIlford 1980).

Pesch (1956) has encountered 147 cases of tumor of the hand (Table 1). Slack (1960) analysed 300 tumor of hand and wrist, 61 % of these were ganglia over the dorsum of the wrist or in relationship to metacarpophalangeal joint, 10% were epidermoid cysts, 29 % were of such tumor of skin as fibroma, melanoma or from tumor of tendon sheath such as synovium, fibroma, or from tumor of blood vessels such as hemangioma, tumor of nerves as neurofibroma, tumor of bone including enchondroma, osteochondroma, osteophyte formation. Haber et al. (1965) reported on 2321 tumor of the hand. removed from patients treated at Passavant Memorial Hospital Chicago during 25 years period from 1939 to 1964 where divided into tissue origin, skin tumor for 19 % soft tissue tumor 50 %, vascular tumor 2 %, nerve sheath 26 %, tumor of bone for 2 %. Incidence of hand tumor varies some what by age, geographic distribution order of frequency 1. ganglia 2. giant cell tumor 3. epidermoid inclusion cyst 4. fibroma. 5. hemangioma 6. lipoma 7. neurofibroma. (Eugene S. Willnir 1977).

Table (1)

Type of Tumor	No. of cases
Premalignant and carcinomatous tumors	11
Fibromata	3
Lipomata	5
Ganglia	51
Ganglia on the distal joints of the fingers	7
Chronic tenosynovitis	7
Tuberculous tenosynovitis	5
Giant-cell tumors	12
Glomus tumors	8
Epidermoid cysts	6
Pyogenic granulomata	4
Foreign-body granulomata	2
Blood-vessel tumors	8
Tumors of peripheral nerves	5
Bone tumors	6
Fibrosarcomata	2
Lymphatic cysts	2
Fibrolipoma of the wrist	1
Synovial cysts of skin	1
Boeck-sarcoid	1

CLASSIFICATION OF BENIGN
TUMORS OF HAND

Tumors are commonly seen in the hand. Very few are malignant, and a fair number are benign neoplasms, but most are nonneoplastic tumors or pseudotumors derived from various diseases, Metabolic disorders, degenerative processes, and congenital anomalies (Robert J. Schultz, 1983).

	Pseudotumors	Benign tumors
Skin warts (verruca vulgaris)		Nevus
Hypertrophic scar		keratosis
Rheumatoid nodule		Dermatofibroma
Boeck's sarcoid		Keratoacanthoma
Pyogenic granuloma		
Pseudoepitheliomatous hyperplasia		
Epithelial inclusion cyst		
Keratinous cyst		
Fat Hematoma and seroma		Lipoma
foreign body		
Gouty tophus		
Fascia Rheumatoid nodule		Fibroma
Dupuytren's fasciitis		Giant cell tumor
Knuckle pads		Xanthoma
Joint Ganglion		Giant cell synovioma
Mucous		
Synovitis cyst		
Knuckle bursa		

Pseudotumors		Benign tumors
Tendon	Tendon stump and callus Rheumatoid nodule Cyst	
Bone	Heberden's node Exostosis Callus (fracture) Bone cyst	Enchondroma Osteoid osteoma Osteochondroma Aneurysmal bone cyst Giant cell tumor Osteoblastoma
Muscle	Hematoma Hypertrophy Duplication	Leiomyoma
Vessels	Varix	Hemangioma involuting Noninvoluting Venous racemose aneurysm Lymphangioma Glomus tumor
Nerve	Neuroma	Neurofibroma Neurilemmoma

From Rosenfeld K. Graham WP. Tumors. In Kilgore ES, Graham WP. editors: The hand-surgical and non-surgical management. Philadelphia, 1977, Lea & Febiger, pp. 333-61.

Table II

Specific Tumors

1- Bone Tumors:

Solitary enchondroma.

Multiple enchondroma.

Multiple and Solitary osteocartilaginous

.Giant cell tumors

.Osteoid osteoma.

..Aneurysmal bone cyst.

2- Skin Tumors and cysts:

Sebaceous cyst.

Mucous cyst.

Inclusion cyst.

Keratoacanthoma.

3- Fibrous tumors:

i. Nonneoplastic tumor like lesio.

 Pacilitis

 keloid

 fibromatosis

ii. Neoplastic fibrous lesions - non collagenous

 Fibroblastic fibrous histiocytoma

 (Benign, malignant,)

iii. Neoplastic fibrous lesion - collagenous

 . Fibroma.

 . extra abdominal desmoid tumor.

4. Vascular tumors:

- Glomus Tumor
- Hemangioma
- Arteriovenous malformation.
- Aneurysm.
- Proliferative edema.

5. Nerve Tumors:

- . Schwannoma or neurolemma
- . Neurofibroma.
- . Lipofibromatosis of the median nerve,
(Dejerine-Soth's disease).

6. Lipid tumors:

- . Xanthoma tendinosum. xanthoma of tendons
- . Lipoma.

7. Synovial tumors:

Synovial giant cell tumor (giant cell tumor of
tendon sheath fibrous xanthoma of synovium,
pigmented nodular
synovitis of tendon sheath).
Pigmented villonodular synovitis.

Surgery of the musculoskeletal system
Smith & Konich
Tumor of the hand, 1983.

Non Neoplastic Disorder which cause Tumors

(1) Post Traumatic:

Hematoma, seroma, ganglion, epidermoid inculsion cyst, foreign body, neuroma, is continuity Neuroma stump. Tendon stump, Hypertrophic skin scar, bone stump (extosis), knuckle bursa, anerysm.

(2) Degenerative states:

Hypertrophic osteoarthropathy with Heberden's nodes, extosis, ganglion, senile keratosis.

(3) Chronic inflammation state and collagen disorder:

Rheumatoid diseases causing synovial as well as skin, subcutaneous tendon nodules, non specific villonodular tenosynovitis, Dupnytres, kerato-acanthoma.

(4) Infective condition:

- Warts.
- pyogenic granuloma.
- pseudo-epithelmatous hyperplasia.

(5) Metabolic disorder.

Gouty tophus, xanthoma.

(6) Congenital states.

- Hemangioma, ganglion, and anomaly of Bone, artero-venous fistula.

(Eugene S. Willnir P. 1977).

(Surgical, non surgical management).

DIAGNOSIS