# Benign soft tissue hand tumor on hypothenar region: A case report

Emmanuel Stephano Bracho Ruiz M.D. Sergio Sandoval Tapia M.D. Daniel Benito Castillo Mastinez M.D. Mariano Tovar M.D. Cuauhtemoc Aguilar Barragán M.D.

#### Mexico City, Mexico



# Background

Hand tumors are a very common problem in hand surgery; these can be classified into benign and malignant. In clinical practice can be divide into soft tissue and bone based. Lipoma is one of the most common benign soft tissue mass, just behind ganglion cyst, as a slow mass growth, no pain, soft and mobile we will review the broad diagnostic and the most common clinical presentations. Hand is one of the rarest localizations.

Keywords: Hand Surgery, Hand Tumors

# Introduction

umors of upper extremity, mostly those involved distal hand, are relatively uncommon. These can be classified into benign and malignant. In clinical practice can be divided into soft tissue and bone based tumor. Ganglion cyst are the most common soft tissue tumors of the hand, they are mucin filled, and usually attached to an adjacent joint capsule, tendon or tendon sheath, lipoma are common benign fat tumors, typically occur in several locations in the hand, most commonly subcutaneously or intramuscularly as a slow mass growth, no pain, soft and mobile, sometimes with nerve o vessel compression symptoms.

## Case report

We present the case of a 41-years-old patient, right hand writer, without any medical history, no history of trauma, and completely healthy referred to our plastic and reconstructive surgery department, with a history of 24 months slow growth soft tissue mass, mobile, not painful, on hypothenar region on her right hand. The patient denied any sensitive an either motor symptoms.

At the moment of our examination we document, and soft tissue mass, on hypothenar region of right hand, mobile, no painful, 2 inches long and 2 inches wide, well distal perfusion by ulnar and radial artery confirm by a Allen test,

Hand sensitive territories were all examine, Radial, Ulnar and Median and were all well preserve, Tinel sign without any abnormality, as well all ranges motions of all fingers as flexion and extension, were Left hand all normal. examination without abnormalities.

## Discussion

Neoplasms are usually classified into two categories; benign and malignant and can be divided into soft tissue and bone based tumor

Malignant neoplasia is characterized by rapid growth and infiltrative, likely to spread distaly. Many benign tumors of the hand and forearm requires no treatment, they can usually be diagnosed clinically, and are asymptomatic. However, if a lesion increases in size or become symptomatic, or any physical or radiographic appearance suggests a malignant tumor surgical remove should be performed. The correct treatment must take into consideration, the size and location of the mass and clinical behavior.

Symptoms vary from just slight change in shape, cosmetic to severe pain and loss of function, all this depending on the tumor type, aggressiveness, and time of onset. Case history is of the biggest importance details on precise time of onset, growth dynamics and symptoms. All patients should be asked about a recent hand trauma as a trigger of a tumor or result.

From the Plastic Surgery Service at Hospital Central Norte Pemex. Mexico city, Mexico. Received on March 15, 2023. Accepted on March 21, 2023. Published on March 23, 2023



Examination should be careful, look over for change in color, shape, and size, palpated to check local pain, temperature, and consistency. Hand function must be tested, range of motion, strength and blood circulation

In some cases diagnostic must include imaging, should be planned to the possible type of tumor, localization. Plain X- ray is usually the first step in almost any diagnosis of hand tumor, useful for bone evaluation, MRI is a method of choice for evaluation on soft tissue tumors, the important feature of MRI is imaging the relationship of the lesion to surrounding structures. Ultrasound it is used to evaluate soft tissue lesion, it helps in the differentiation between solid tumors and fluid lesion, plus this technique are the relatively low price and safe for the patient.

### Conclusions

Case history is of the biggest importance details on precise time of onset, growth dynamics and symptoms. All patients should be asked about a recent hand trauma as a trigger of a tumor or result of any lesion as well the examination should be careful, shape, and size, palpated to check local pain, temperature, and consistency and always hand function must be tested.

# Conflicts of interests

The authors have no conflicts of interest to declare.

Tumor	Incidence (%)	Site	Remarks
Ganglion Cyst	35	Dorsal Wrist	
Tenosynovitis Nodularis	14	Index and Long finger	High rate of recurrence
Lipoma	13	Thenar region	Possible multiple
Fibroma	6	Fingers	Possible multiple
Glomus	4	Nails	Cold / Painful
Neuroma	1	Finger stumps	Painful

Table 1. Summary of benign soft tissue hand tumors.

### Acknowledgements

I would like to acknowledge the excellent team work of those involved in this wonderful case report.

#### References

- 1. Lazerges C, Degeorge B, Coulet B, Chammas M. Diagnosis and treatment of hand tumors. Orthop Traumatol Surg Res [Internet]. 2022;108(1S):103153.
- 2. Payne WT, Merrell G. Benign bony and soft tissue tumors of the hand. J Hand Surg Am [Internet]. 2010;35(11):1901–10.
- Romanowski L, Czarnecki P, Bręborowicz M. Benign and malignant hand tumors. En: Plastic and Reconstructive Surgery. London: Springer London; 2010. p. 551–71.
- 4. Wolfe SW, Pederson WC, Hotchkiss RN, Kozin SH. Green's operative hand surgery: 2-Volume set. 6a ed. Nueva York, NY, Estados Unidos de América: Churchill Livingstone; 2010.

Emmanuel Stephano Bracho Ruiz Plastic Surgery Service Hospital Central Norte Pemex Mexico City, Mexico