# RARE TENDON SHEATH GIANT CELL TUMOR OF THE THUMB – CASE REPORT

# РЕТКА ЛОКАЛИЗАЦИЈА НА ТЕТИВЕН ГИГАНТОЦЕЛУЛАРЕН ТУМОР НА ПАЛЕЦОТ-ПРИКАЗ НА СЛУЧАЈ

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## АПСТРАКТ

Giant cell tumor на тетивите е бениген мекоткивен тумор. Во литературата е опишано дека се јавува кај луѓе од 30 до 50 годишна возраст, без доминантност кај машкиот или женскиот пол. Giant cell tumor е бениген тумор кој има потенцијал да направи рецидив. По радикално хируршко отстранување, според литературата, кај 15% - 44% од пациентите има појава на рецидив на истата локација. Според процентот на застапеност, овој тип на тумор е вториот најчест тумор од бенигните тумори на дланката. Најчесто се јавува на прстите од дланката. Во овој труд, презентираме хируршки третиран пациент со giant cell tumor на тетивата, на палмарната страна во ниво на дисталната фаланга на десниот палец.

Клучни збоорови: гигантоцелуларен тумор на тетивната обвивка, палец

## ABSTRACT

Giant cell tumor of the tendon sheath is benign soft tissue tumor. The literature shows it affects people between age of 30 to 50 years with no gender predominance. Giant cell tumor is benign tumor which sometimes has potential to reappear. After radical surgical removal, according to the literature, 15%-44% of the patients have recurrence of the tumor on the same location. This type of tumor is usually located on the fingers, and resembles the second most common benign tumor of the hand. In this report we present a surgically treated patient with giant cell tumor of the tendon sheath in the palmar part of the distal phalanx of the right thumb.

Key words: giant cell tumor of the tendon sheath, thumb.

#### INTRODUCTION

Giant cell tumoris benign soft tissue tumor. The literature shows it affects people between ages of 30 to 50 years with no gender predominance. Giant cell tumoris benign tumor, which sometimes has potential of recurrence. After surgical removal of the tumor, literature reports that 15%-44% of the patients have recurrence of the tumor on the same location.<sup>1</sup>Soft tissue mass or bump associated with local swelling are typical clinical symptoms.<sup>2</sup> Local palpable pain on the lesion may occur. This type of tumor is usually found in the hand, although the literature describes other localizations also, like the ankle or the foot.<sup>3</sup> Most common localization of the tumor is the dorsum of the index finger, after that is the thumb and the rarest localization of the hand is the little Ifinger.<sup>4</sup> The giant cell tumor is the second most common benign tumor of the hand.

In this report we present a surgically treated patient with giant cell tumor of the tendon sheath in the palmar part of the distal phalanx of the right thumb.

## CASE REPORT

We present a 47 year old male, right hand dominant, with five month mild pain in the right thumb. The patient reported no sign of trauma. The clinical examination showed palpable painful soft tissue mass (bump) in the proximal part of the right thumb (Figure 1). Radiographs were made (Figure 2) and the patient was scheduled for needle biopsy. The results of the biopsy referred a giant cell tumor. The patient was admitted in our clinic for excision of the tumor.



Figure 1: Soft tissue mass of the right thumb



Figure 2: Native radiographs of the right thumb

In local anesthesia skin incision was made. A folded surgical glove as Tourniquet was used. Stuffing of the subcutaneous tissue was made and identification of the local anatomical structures was performed. (Figure 3). The tumor was carefully dissected and separated from the local tissue, than was radically removed (Figure 4).



**Figure 3:** Surgical approach and dissection of the tumor



Figure 4: Dimensions of the radically removed tumor

Curette was taken to clear and remove the suspicious tissue in the vicinity of the tumor. Hemostasis was meticulously performed and the surgical wound was irrigated. The wound edges were approximated and closed with intradermal stiches. Dressing of the surgical wound was done and the tumor with all of the tissue samples were sent to pathohistology (Figure 5).





Figure 5: Intradermal closing of the wound and dressing

### DISCUSSION

Giant cell tumor of the tendon sheath is relatively rare tumor with predominant localization on the hand. It is a slow growing benign tumor that can develop for months and years. The literature shows it affects people between ages of 30 to 50 years with no gender predominance. Giant cell tumor of the tendon sheath is benign tumor, that sometimes have potential of recurrence. The surgical treatment is recommended, although incomplete tumor resection can result in tumor recurrence. Recurrence after surgical excision has been reported as high as 15–45%. The literature reports that recurrence of giant cell tumor is much higher at the thumb localization, because of the anatomical structures like: the neuro-vascular bundles that are quite close to tumor margins and the local soft tissue compartments.

Depending of the localization of the giant cell tumor, preservation of the flexor and extensor tendons, as well as the digital arteries and nerves should be performed. Because of the pseudo capsule of the tumor, the giant cell tumor can be easily radically removed.

#### CONCLUSION

Giant cell tumor of the tendon sheath is benign soft tissue tumor, most frequently located in the hand. In this case study we present a 47 year old male with giant cell tumor in the palmar part of the distal phalanx of the right thumb, which was treated surgically, with radical extirpation. Operative treatment is treatment of choice for giant cell tumors, although incomplete resection of the tumor may result in tumor reappearance in the same location.

Thorough physical examination and patient history, as well as detailed preoperative plan are needed for best patient outcome.

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