

# Bilateral Congenital Extensor Tendons Dislocation over the Metacarpophalangeal Joints

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## Citation

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## Abstract

Congenital extensor tendon dislocation over the metacarpophalangeal joint is a rare condition. Here the author presents a patient with bilateral all fingers congenital extensor tendons dislocation over the metacarpophalangeal joints. A video demonstration and ultrasound images are shown to supplement this case.

## CASE PRESENTATION

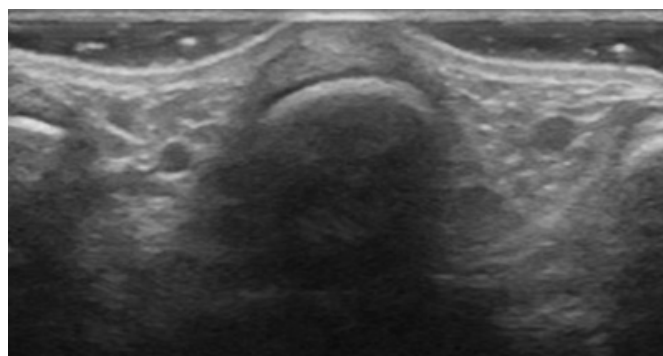
A 29-year-old woman presented with a complaint of a long standing “out of line” movement of her extensor tendons over her knuckles bilaterally. She reported that she can voluntarily dislocate her tendons when her metacarpophalangeal joints (MCPJs) are in flexed position and this is associated with snapping. Upon further questioning, she admitted that she has been able to do that for years, since she was a kid. The patient did not have any history of trauma to the hands. This did not bother her a lot, except when she used her hands extensively after which she felt discomfort over her knuckles area. Her previous medical history was significant for hypertension and hypercholesterolemia which have been controlled and a cholecystectomy. There was no family history of congenital abnormalities.

At physical examination, voluntary dislocation of extensor tendons over the metacarpophalangeal joints was noticed in all fingers (See move). She had full range of motion and her neurological exam was normal.

Ultrasound exam showed dislocation of the tendons with slipping in the inter MCPJ space. (Fig. 1 a, b)

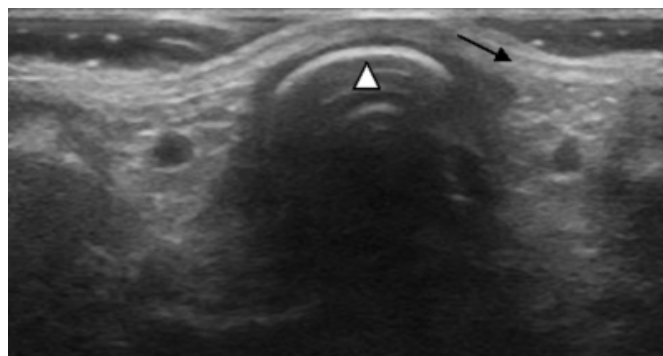
**Figure 1**

Fig. 1 a: Axial ultrasound image at MCP level of the third digit. Note the extensor tendon (arrow) located central over the metacarpal head (arrowhead).



**Figure 2**

Fig. 1 b: Axial ultrasound image at MCP level of the third digit. The extensor tendon is dislocated into the intermetacarpal space (arrow) with flexion of the MCPJ and is not visualized over the metacarpal head (arrowhead).



The patient was diagnosed with congenital dislocation of the

extensor tendons over the MCPJs of all fingers bilaterally. After discussion regarding her condition, treatment and prognosis, she deferred further treatment.

### **DISCUSSION**

Dislocation of the extensor tendons over the MCPJ is an uncommon condition in a non-rheumatoid patient. Three different etiologies have been described in the literature: post-traumatic, spontaneous, and congenital dislocations [1]. Trauma is the most common cause with a very few congenital cases described in the English literature [1]. Intact sagittal bands maintain the central position of the extensor tendon [2]. Other structures such as juncturae tendinum, intertendinous fascia and dorsal hood are believed to play a role in supporting the extensor tendon as well [2]. Contrary to the post-traumatic type where injury to the sagittal band and other structures is found, in the congenital type the dislocation is due to lack, underdevelopment or laxity of the extensor tendon restraining structures. Clinical symptoms of extensor tendon dislocation over the MCPJ include pain/discomfort, swelling, loss of full joint extension and ulnar or radial subluxation/dislocation. Cases classified as congenital are usually bilateral and involve multiple fingers.

Ultrasound can be used to detect dynamic tendon dislocation and subluxation and provide useful information [3]. Surgical stabilization may be an appropriate option for symptomatic patients with congenital extensor tendon dislocation over the MCPJ.

### **CONCLUSION**

Congenital extensor tendon dislocation over the MCPJ is an easily diagnosed condition if the physician is aware of this rare anatomical abnormality. Due to its rarity, there are no clear treatment guidelines. The author of this article believes that observation should be utilized in the non symptomatic cases and surgical stabilization in the symptomatic patients.

### **References**

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3. Lopez-Ben R, Lee DH, Nicolodi DJ. Boxer knuckle (injury of the extensor hood with extensor tendon subluxation): diagnosis with dynamic US-report of three cases. *Radiology*. 2003;228(3):642-6.

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