

## RADIOCAPITELLAR GANGLION MANAGED WITH ULTRASOUND GUIDED FENESTRATION

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**G**anglion around elbow are rare. We report a case of 55 year old patient with radiocapitellar ganglion that was treated successfully with ultrasound guided fenestration and discuss the literature.

Keywords: ganglion, radiocapitellar ganglion, ultrasound, ultrasound guided control.

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## ФЕНЕСТРАЦИЯ ГАНГЛИОЗНОЙ КИСТЫ ЛУЧЕГОЛОВЧАТОГО СОЧЛЕНЕНИЯ ПОД УЗ-КОНТРОЛЕМ

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**Г**англиозные кисты в области локтевого сустава встречаются редко. В данной работе коллектив авторов описывает случай ганглиозной кисты лучеголовчатого сочленения у 55-летнего пациента, которому было успешно проведено лечение с помощью фенестрации под ультразвуковым контролем. Приведена известная литература на данную тему.

Ключевые слова: ганглий, радиокапителлярный ганглий, УЗИ, ультразвуковой контроль.

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**G**anglia around the elbow are rare [1-3]. These are non-malignant cystic lesions that are associated with joint or tendon sheaths. Ganglia can be asymptomatic. Symptoms are due to mass effect of the ganglion on the adjacent structures. We report a case of 55 year old female with a ganglion arising from the radiocapitellar joint that was managed successfully with ultrasound guided fenestration.

**Case report.**

55 year old fit and well female presented

with 6 months history of anterior elbow pain and mild restriction of elbow extension. There were no clinical symptoms of lateral epicondylitis or paraesthesia. There was no history of trauma and past medial history was unremarkable. MR performed revealed a 2cm x 0.4cm x 1cm multiloculated ganglion arising from the anterior radiocapitellar joint. (Fig. 1).

The ganglion extended through the two components of brachialis without compression of the posterior interosseous nerve. She was managed with ultrasound-guided aspira-



Fig. 1 а (Рис. 1 а)

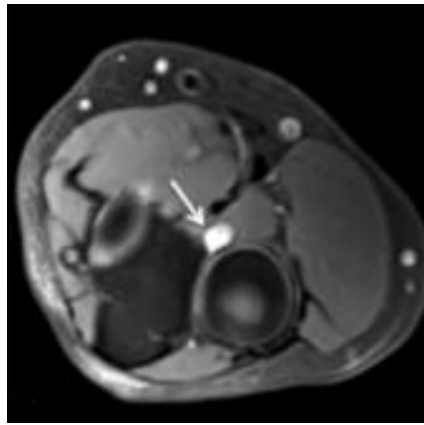


Fig. 1 б (Рис. 1 б)



Fig. 1 с (Рис. 1 в)

**Fig. 1. Elbow joint MRI.**

PDFS: A – sagittal, B – axial, C – coronal view. Showing the ganglion (arrow) in relation to volar aspect of the radiocapitellar joint.

**Рис. 1. МРТ локтевого сустава.**

PDFS: А – сагиттальная, Б – аксиальная, В – корональная проекции. Показана ганглиозная киста (стрелка) по отношению к ладонной поверхности лучеголовчатого сустава.



Fig. 2 а (Рис. 2 а)

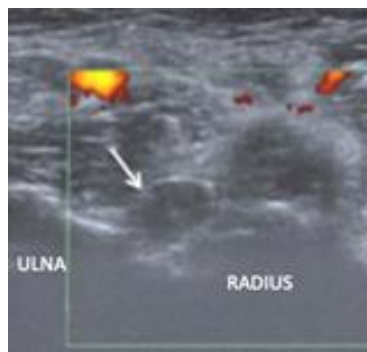


Fig. 2 б (Рис. 2 б)



Fig. 2 с (Рис. 2 в)

**Fig. 2. Elbow ultrasound.**

A – longitudinal, B – axial sonographic image of elbow showing the ganglion (arrow) which was managed with ultrasound guided aspiration/fenestration (C – arrow head).

**Рис. 2. УЗИ локтевого сустава.**

А – продольное, Б – осевое ультразвуковое изображение области локтевого сустава, демонстрирующие ганглиозную кисту (стрелка), лечение которой проводилось с помощью ультразвуковой аспирации/фенестрации (С – головка стрелки).

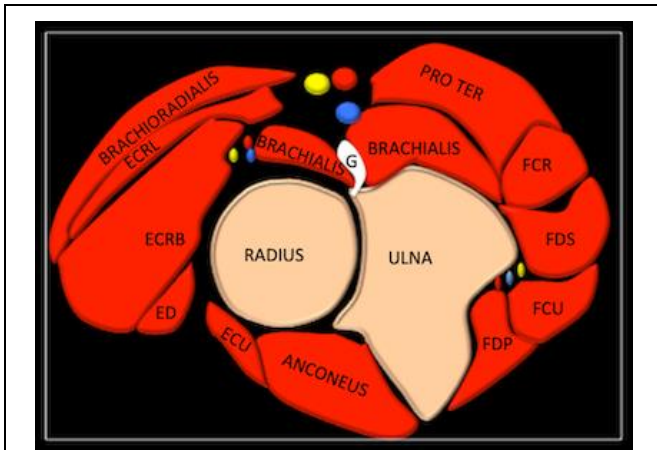


Fig. 3 (Рис. 3)

**Fig. 3. Axial schematic of elbow.**

ECRL(extensor carpi radialis longus), ECRB(extensor carpi radialis brevis), ED(extensor digitorum), ECU(extensor carpi ulnaris), G(ganglion), PRO TER(pronator teres), FCR(flexor carpi radialis), FDS(flexor digitorum superficialis), FDP(flexor digitorum profundus), FCU(flexor carpi ulnaris).

**Рис. 3. Аксиальное схематическое изображение локтевого сустава.**

ECRL(extensor carpi radialis longus), ECRB(extensor carpi radialis brevis), ED(extensor digitorum), ECU(extensor carpi ulnaris), G(ганглиозная киста), PRO TER(pronator teres), FCR(flexor carpi radialis), FDS(flexor digitorum superficialis), FDP(flexor digitorum profundus), FCU(flexor carpi ulnaris).

tion/fenestration of the ganglion and installation of 40mg of triamcinolone through an anterolateral approach via the mobile wad of Henry(Fig. 2).She had significant decrease in symptoms following the procedure.

**Discussion.**

Ganglions around the elbow are rare. These are well-defined cysts communicating with the joint or tendon sheath[1-3].The brachialis is closely related to the anterior capsule of the elbow joint. The medial part of the capsular fibres of brachialis is shorter and longer centrally in a V

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configuration [4].The morphology of brachialis at the level of radiocapitellar joint includes a large lateral muscular and smaller lateral component. The interval between the two is a potential site of weakness of the anterior capsule of the elbow resulting in a ganglion as in our case. (Fig. 3).These ganglia are classified into type A and B with type A arising proximal to arcade of Frosbeand those distal being type B [2].

These may be asymptomatic. Symptoms include restriction of movements and pain mimicking lateral epicondylitis. Some ganglion cysts of the elbow can cause compression of the posterior interosseous nerve or radial nerve [1-3]. The symptomatology of the ganglion is different for the two types of ganglion with type A associated with compression of the posterior interosseous nerve or superficial sensory branch of radial nerve, resulting with weakness of wrist and finger extension and pain with paraesthesia in the dorsum of the forearm and hand (E2) The differential for ganglion cysts include neuroma and fibromas. These can be managed with aspiration or surgical excision. There is a high recurrence rate of ganglia of around 30%. All cases in the literature have been managed conservatively or surgically [1, 2]. These can be associated with morbidity in contrast to percutaneous ultrasound guided fenestration.

We report the first case of ultrasound guided aspiration/fenestration of a Type A radiocapitellar ganglion. This can be performed successfully via an anterolateral approach through the mobile wad of Henry (brachioradialis, ECRB, ECRL) involving aspiration and fenestration of the ganglion cyst and subsequent instillation of steroid.

**Conclusion.**

Ganglion cysts of the radiocapitellar joint are rare and can be managed successfully with ultrasound guided fenestration/aspiration.

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**Conflict of interests.**

No conflict of interest. Informed consent was obtained.

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