1). At 3 months no difference was found in the radiographic evolution: 62.1% of the patients treated with steroid and 64.8% treated with serum saline had more than 50% of resorption of their calcification.

Conclusions: Our study shows that steroid injection in the SAB leads to a significant decrease of maximal pain the following week. This treatment also decreases significantly the pain during the 3 first months after UGPL. Importantly, we found no difference between the 2 groups in the radiographic evolution of the calcification at 3 months. Overall, steroids injections in the SAB can be recommended after UGPL.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.7349

THU0524 IS THERE ANY EFFECT OF KINESIOTAPING ON RADIAL NERVE IN PATIENTS WITH UNILATERAL LATERAL EPICONDYLITIS? A RANDOMIZED-SINGLE BLIND STUDY

B. Mansiz-Kaplan, S. Vural, O.F. Celik, H. Genc. *Department of Physical Medicine and Rehabilitation, University of Health Sciences, Ankara Training and Research Hospital, Department of Physical Medicine and Rehabilitation, Ankara, Turkey, Ankara, Turkey*

Objectives: Lateral epicondylitis is characterised by pain in the lateral epicondyle of the humerus and common extensor tendon (CET). It was reported that radial nerve cross-sectional area were increased in refractory lateral epicondylitis measuring with ultrasonography, although nerve conduction studies were normal. In literature, it is indicated that kinesiotaping is effective at the treatment of lateral epicondylitis. In this study, we aimed to evaluate the effect of kinesiotaping with the larger sample size and using ultrasonography in addition to clinical parameters with patients lateral epicondylitis.

Methods: Eighty-five patients with unilateral lateral epicondylitis who completed the inclusion criteria were randomised into two groups. The non-steroidal anti-inflammatory drug (NSAID) was administered to the control group (CON) twice daily for 10 days, while kinesiotaping (KT) was performed 3 times a week for 2 weeks, in addition to the same NSAIDs. Clinical and ultrasonographic evaluation was performed before treatment, at 2 weeks (at the end of treatment) and at 6 weeks. Visual analogue scale (VAS), Nirschl grading, and PRTEE (Patient Based Tennis Elbow Evaluation Test) were used for clinical evaluation. The radial nerve cross-sectional area (RNCSA) were measured at two level: spiral groove, just before bifurcation and CET thickness was calculated by ultrasonography. Clinical evaluation, ultrasonographic evaluation and management of treatment were performed by blind investigators.

Results: The study was completed with 80 patients and there were 40 patients in both groups. There were no significant difference age, gender, education, occupation, symptom duration and body mass index in both groups. The improvement of VAS was significant in CON at 2nd week ($p < 0.05$), but not at 6th weeks. In KT group, improvement of VAS was significant both at the 2nd and at 6th weeks ($p = 0.00$). Significant improvement was observed in spiral groove RNCSA and CET thickness in both groups. In the KT group, RNCSA at the level of pre-bifurcation was decreased significantly at the 2nd and 6th weeks ($p = 0.00$), but there was no descrease in the CON. When the groups were compared, significant differences were observed in clinical parameters, CET thickness, and bifurcation RNCSA values at 2 and 6 weeks in the KT group ($p < 0.01$).

Conclusions: Kinesiotaping improves clinical parameters and decreases ultrasonographic parameters such as CET thickness and radial nerve cross-sectional area. Therefore, kinesiotaping may be an alternative method that can be used in the treatment of lateral epicondylitis.

REFERENCES:

- [1] Gürçay E, Karaahmet ÖZ, Kara M, Onat SS, Ata AM, Ünlü E, Özçakar L. Ultrasonographic Evaluation of the Radial Nerves in Patients with Unilateral Refractory Lateral Epicondylitis. *Pain Med* 2017 Mar 1;18(3):396–402.
- [2] Dilek B, Batmaz I, Sarıyıldız MA, Sahin E, Ilter L, Gulbahar S, Cevik R, Nas K. Kinesio taping in patients with lateral epicondylitis. *J Back Musculoskelet Rehabil* 2016 Nov 21;29(4):853–858.
- [3] Shakeri H, Soleimanifar M, Arab AM, Hamneshin Behbahani S. The effects of KinesioTape on the treatment of lateral epicondylitis. *J Hand Ther* 2017 Feb 27;S0894–1130(17)30005–4.
- [4] Eraslan L, Yuce D, Erbilici A, Baltaci G. Does Kinesiotaping improve pain and functionality in patients with newly diagnosed lateral epicondylitis? *Knee Surg Sports Traumatol Arthrosc* 2017 Aug 24.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.3136

THU0525 EFFECT OF LOCAL INSULIN INJECTION IN THE TREATMENT OF MILD TO MODERATE CARPAL TUNNEL SYNDROME IN PATIENTS WITH TYPE 2 DIABETES MELLITUS

A.H. Ismail, S.R. Kamel, H.A. Sadek, O.A. Sayed. *rheumatology and rehabilitation department, faculty of medicine- Minia University-Egypt, Minia, Egypt*

Background: Carpal tunnel syndrome (CTS) is the most common focal nerve entrapment and is a significant cause of morbidity; this syndrome has a higher incidence in diabetic patients. It has been suggested that insulin influences nerve regeneration in a similar way to that of nerve growth factor.

Objectives: Aim: The aim of the study was to compare the effectiveness of local insulin injection, with that of local steroid injection and of local steroid followed by insulin injections in treating mild to moderate carpal tunnel syndrome in patients with type 2 diabetes mellitus.

Methods: Patients and methods: The study included 60 type 2 diabetic patients with electrophysiologic evidence of mild to moderate CTS. They were randomly assigned to three groups: group I received insulin injection of 10 IU Neutral Protamine Hagedorn insulin (NPH insulin) locally into the affected carpal tunnel at the first visit and a similar dose of insulin after 2 weeks; group II received a single injection of 40 mg methylprednisolone acetate injection into the carpal tunnel. And group III received a steroid injection into the carpal tunnel then followed by insulin injection twice after 2 and 4 weeks from the steroid injection. Clinical, electrophysiologic and ultrasonographic evaluations were carried out at the start of the study and at 10 weeks after treatment.

Results: Results: In all groups, there was significant improvement in symptoms, signs and assessment questionnaires (SS score, FD score, and VAS) after receiving the injection. Also, there was a statistically highly significant improvement in DML, SNCV, PSL, and a statistically significant improvement in Samp in the insulin group. While in steroid group there was a statistically highly significant improvement in PSL, and a statistically significant improvement in SNCV. In the third group (steroid followed by insulin), there was a statistically highly significant improvement in DML, SNCV and PSL. As for ultrasonographic assessment, there was a statistically significant improvement in CSA and PD in all groups. The third group (steroid followed by insulin) showed the best improvement as regard the CSA.

Conclusions: Conclusion: Local insulin injection was found to be as effective as steroid in reducing the symptoms of CTS and improving electrophysiological and ultrasonographic findings, being a safer alternative for diabetic patients. Our findings suggest that local insulin injection after local steroid injection may be of additional benefit in improving median nerve ultrasonographic parameters in mild to moderate diabetic CTS. **Keywords:** Type 2 diabetes mellitus, carpal tunnel syndrome, local insulin injection.

REFERENCES:

- [1] Atroshi I, Gummesson C, Johnsson R, Ornstein E, Ranstam J, Rosén I. Prevalence of carpal tunnel syndrome in a general population. *JAMA* 1999; 282(2):153–8.
- [2] Celiker R, Basgöze O, Bayraktar M. Early detection of neurological involvement in diabetes mellitus. *Electromyogr Clin Neurophysiol* 1995; 36 (1):29–35.

Acknowledgements: To all professors and colleagues at Rheumatology and Rehabilitation department, Faculty of medicine, Minia University, Egypt. patients for their appreciable cooperation and respectable follow up.

Disclosure of Interest: None declared

DOI: 10.1136/annrheumdis-2018-eular.5695