CORRELATION BETWEEN SERUM RESISTIN AND CAROTID INTIMA-MEDIA THICKNESS AS A MARKER OF SUBCLINICALATHEROSCLEROSIS IN SYSTEMIC LUPUS ERYTHEMATOSUS

Omnia Ahmed1, Mona Abdel Mageed2, Mohamed Baraka3, Dalia Elnemly4, Ahmed Shabab5, Faculty of Medicine, Alexandria University, Rheumatology and Internal Medicine, Alexandria, Egypt; 2Faculty of Medicine, Alexandria University, Rheumatology and Internal Medicine, Alexandria, Egypt; 3Faculty of Medicine, Alexandria University, Radiodiagnosis, Alexandria, Egypt; 4Faculty of Medicine, Alexandria University, Chemical and Clinical Pathology, Alexandria, Egypt; 5Faculty of Medicine, Alexandria University, Rheumatology and Internal Medicine, Alexandria, Egypt

Background: Although SLE management has improved markedly in the last few decades, cardiovascular disease (CVD) is still one of the most important leading cause of death. Subclinical atherosclerosis is increased in patients with SLE and it is not fully explained by traditional cardiovascular risk factors. Evidences suggest that resistin is involved in pathological processes leading to CVD including; inflammation, endothelial dysfunction, thrombosis, angiogenesis and smooth muscle cell dysfunction.

Objectives: To determine the relationship between serum resistin level and carotid intima-media thickness by doppler technique as a marker of premature or subclinical atherosclerosis in SLE patients.

Methods: This is a cross-sectional study, carried on thirty Egyptian SLE patients who fulfilled the 2012 Systemic Lupus International Collaborating Clinics (SLICC) criteria. All patients had metabolic syndrome were excluded. Twenty healthy individuals, non smokers, matched for age and sex as controls. All patients were subjected to detailed history taking, a complete clinical examination. Laboratory investigations were done including serum resistin and HOMA was calculated, also the SLE disease activity index (SLEDAI 2K) and SLE disease damage index (SLEDDI) were applied and the scores were estimated. The carotid intima media thickness (CIMT) was assessed by carotid doppler ultrasonography.

Results: There was no statistically significant difference in serum resistin between SLE patients and healthy individuals (p=0.804). As regards the correlation with disease parameters Serum resistin show statistically significant correlation correlation with hs-crp (r=-0.27), HDL (p<0.001), and ANA titre (r=0.13), but no significant correlation with HOMA, SLEDAI, SLEDDI, CIMT and different clinical activities. There was a statistically significant difference in CIMT between SLE patients and the controls (P=0.006).

Conclusion: Although serum resistin is correlated with two of cardiovascular risk factors (HDLC, hs-CRP), it doesn’t correlate significantly with CIMT in SLE patients. Resistin is correlated to inflammation more than subclinical atherosclerosis. Moreover, SLE patients have higher CIMT than healthy population so SLE is considered a CVD risk factor.

REFERENCES

Disclosure of Interests: None declared

THE ROLE OF ANGIOPOETHIN-LIKE PROTEIN 4 TYPE IN PROGRESSION OF INFLAMMATORY CHANGES IN RHEUMATOID ARTHRITIS

Vladislav Aleksandrov1,2, Ludmila Shilova1, Irina Alekhina2, Ninel Aleksandrova2, Department of Hospital Therapy, Volgograd, Russian Federation; 3Research Institute of Clinical and Experimental Rheumatology named after A.B. Zborovsky, Volgograd, Russian Federation; 4Volgograd State Medical University, Department of Hospital Therapy, Volgograd, Russian Federation; 5Research Institute of Clinical and Experimental Rheumatology named after A.B. Zborovsky, Volgograd, Russian Federation

Background: Angiopoietin-like protein 4 (ANGPTL4) is actively involved in the processes associated with inflammation, angiogenesis and lipid metabolism in rheumatoid arthritis (RA).

Objectives: To study of the effect of ANGPTL4 on the features of the inflammatory process in RA.

Methods: The study included 36 RA patients (aged from 33 to 64 years old). A control group (12 people) comprised healthy individuals aged 28 to 52 years old, 28 patients with osteoarthritis (OA) aged 48 to 70 years and 14 people with ankylosing spondylitis (AS) aged 39 to 62 years. Levels of ANGPTL4 in serum were determined by the enzyme immunoassay using the commercial test systems «Human Angiopoietin-like Protein 4 ELISA» from «Bio Vendor» (Czech Republic), Serum C-reactive protein (CRP) levels, erythrocyte sedimentation rates (ESR), rheumatoid factor (RF) titers, and anti-cyclic citrullinated peptide antibody (anti-CCP) were also measured in patients with RA.

Results: The following results were obtained: the level of ANGPTL4 was significantly higher in patients with RA than in patients with OA, AS, and healthy individuals (p = 0.04, p = 0.021, p = 0.038, respectively). A strong positive correlation was found between the level of ANGPTL4 and the activity of RA according to DAS28 (r = 0.71, p = 0.002). There is no reliable association between ANGPTL4 and anti-CCP (p> 0.05). The ANGPTL4 level in the serum was correlated with levels of ESR (r = 0.42, p = 0.019), CRP (r = 0.49, p = 0.007) and the Sharp score of radiologic change (r = 0.39, p = 0.045) in RA. Hypervascularization rates were significantly correlated with ANGPTL4 in patients with RA (r = 0.38, p = 0.002) according to Doppler data. ANGPTL4 can activate proliferation processes in the synovial membrane by binding to integrin-αvβ3. Besides,
the concentration of mast cells is increased in the synovium of affected joints. Mast cells significantly influence angiogenesis through the production of proangiogenic cytokines, including ANGPTL4.

**Conclusion:** Changes of the level of ANGPTL4 in the serum of patients with RA may be a potential biomarker of disease activity, severity of neovascularization, inflammation and development of bone erosion.

**Disclosure of Interests:** None declared

**DOI:** 10.1136/annrheumdis-2019-eular.7888

---

**AB1119**

**THE PRESENCE OF SYNOVITIS IS THE MAIN FACTOR INFLUENCING THE DEVELOPMENT OF PAIN SYNDROME IN ARTHRITIS OF THE KNEE JOINT**

Ninel Aleksandrova, Natalia Nikitina, Vladimir Aleksandrova, Ludmila Shilova, Andrey Aleksandrova. 1. Research Institute of Clinical and Experimental Rheumatology named after A.B. Zborovsky, Volgograd, Russian Federation; 2. Volgograd State Medical University, Hospital Therapy, Volgograd, Russian Federation

**Background:** Dysfunctions and pain syndrome in lesions of the knee joint can significantly discomfort a sick person and lead to a persistent decrease in physical activity and disability. Often pain syndrome precedes radiographic appearance of the structural changes in the joint and is accompanied by an increase in number of different changes in the synovium according to ultrasound investigation.

**Objectives:** To investigate the clinical significance of ultrasound criteria of changes in the synovial membrane of the knee joint cavity and its role in the assessment of pain in gonarthrosis.

**Methods:** 30 people aged 30 to 50 years with osteoarthritis of the knee joint were under observation; assessment of the severity of pain in the knee when walking was at least 40 mm on a visual analogue scale (VAS). Ultrasound examination of the knee joint was carried out according to standard procedure using a linear sensor with a frequency of 0.5-12 MHz in an ultrasonic diagnosis system Accuvix V10 (Samsung Medison, Korea).

**Results:** The evaluation of ultrasound changes was performed in the upper inversion of the knee joint according to the following criteria: the severity of intraarticular effusion (1), synovial proliferation (2), local vascularization of synovium according to ultrasound investigation.

**Conclusion:** It is determined that ultrasound examination of the knee joint may be a reliable diagnostic tool for cubital tunnel syndrome (CTSy) in comparison with clinical examination.

**Disclosure of Interests:** None declared

**DOI:** 10.1136/annrheumdis-2019-eular.4629

---

**AB1120**

**DIAGNOSTIC ROLE OF NEUROMUSCULAR ULTRASOUND IN CUBITAL TENDON SYNDROME**

Fatima Al, Mona Nasr, Ahmed Hafez, Adham Khalil. 1. Minia University, Rheumatology and Rehabilitation, Minia, Egypt; 2. Minia university, Rheumatology and Rehabilitation, Minia, Egypt; 3. New Kasr El Eini Teaching Hospital, Cairo University, Cairo, Egypt

**Background:** Cubital tendon syndrome (CuTS) is the second most common compressive neuropathy of the upper limb following carpal tunnel syndrome and is the most common site for entrapment for the ulnar nerve

**Objectives:** Our aim is to evaluate the role of ultrasonography (US) as a diagnostic tool for Cubital tunnel syndrome (CuTS) in comparison with nerve conduction study (NCS).

**Methods:** Twenty elbows with CuTS and twenty asymptomatic controls were assessed by NCS and underwent ultrasonography of elbows. Data from patients and controls were compared to determine the diagnostic relations in patients with CuTS and the grade of severity

**Results:** There was a high degree of correlation between NCS of the ulnar nerve, clinical parameters and variable US measurements. The CSA of the ulnar nerve was the most sensitive parameter and a cut-off point of 9.5 mm² behind medial epicondyly was found to be 100% sensitive and 80% specific. The ulnar nerve ratios (UNR) had a diagnostic accuracy of 95% with 85% specificity.

**Conclusion:** Ultrasonographic measurements of the ulnar nerve CSA and UNR have a comparable diagnostic value as a non-invasive and an alternative modality for the evaluation of CuTS

**Disclosure of Interests:** None declared

**DOI:** 10.1136/annrheumdis-2019-eular.7666

---

**REFERENCES**


[2] Omejec G, Podnar S. Normal values for short segment nerve conduc-


---

**AB1121**

**EFFICACY AND SAFETY OF ULTRASOUND GUIDED ASPIRATION AND INTRA-LESIONAL CORTICOSTEROIDS INJECTION OF RUPTURED BAKER’S CYST**

Mohammed A. Mortada, Younna A. Ameir. 1. Faculty of medicine, Zagazig University, Reheumatology and Rehabilitation, Zagazig, Egypt; 2. Faculty of medicine zagazig university, Rheumatology and rehabilitation, Zagazig, Egypt

**Background:** Baker’s cyst is the most common mass in the popliteal fossa and results from fluid distension of the gastrocnemio-semimembranosus bursa. The most common complication of Baker’s cyst is the rupture or dissection of fluid into the adjacent proximal gastrocnemius muscle belly, which results in a pseudothrombophlebitis syndrome mimicking symptoms of DVT.

**Objectives:** To evaluate the efficacy and safety of ultrasonographic guided aspiration and corticosteroids injection in the management of ruptured Baker cysts.

**Methods:** A retrospective study was conducted on 42 patients (12 males and 30 females, mean age 36 +/- 10 SD years) affected by a ruptured Baker cysts associated to knee joint disorders in the period between January 2013 to January 2019. The diagnosis was done by clinical presentation of acute calf pain, swelling, tenderness at the calf muscles and ultrasonographic evidences of ruptured backer cysts in the form of free fluid collection in the calf connected to a well defined cyst at the back of knee.

All cases were treated by ultrasonographic guided aspiration and intra-lesional injection of corticosteroids once or twice a week a part. Follow up were done on a weekly basis until complete resolution of symptoms then 3 months later. Visual analogue scale (VAS) for calf pain and Rauschning-Lindgren and Lysholm Knee Scoring Scales were used to assess post-injection knee functions.

**Results:** The primary diagnoses to patients presented with ruptured Baker cyst in this study were as follows: 18 (42.8%) cases with rheumatoid arthritis.