43.8 years (range: 17–80). The main underlying disease was SLE in 22 (45.8%). Previous/current treatment at time CD diagnosis included GC >40mg/day in 27/48 (56.3%), DMARDs in 32/48 (66.7%) and 7 patients had previously received DB. CD was reactivated in 36 (75%) cases (mean 40.9 months [range: 0–252]) with the following patterns: high *T. cruzi* load by quantitative real-time polymerase chain reaction (qRT-PCR) in 23 (63.8%) from which 20 (86.9%) had no clinical manifestation and 3 (13%) had panniculitis, the remaining 11 patients (30.5%) had positive XD with one of them had myositis, only one patient (2.7%) had fever. After a mean follow-up of 47 (range: 1–120) months, 4 patients with SLE died (8.3%), all had received GC>40mg/day, 3 had CD reactivation and all died due to SLE flare. No statistical differences were found with respect to CD diagnosis, use of GC, DMARDs, BD; in contrast, patients who had CD reactivation on therapy with GC >40mg/day showed higher cardiac involvement (83.3% vs 43.5%, $p=0.03$ OR 6.50 CI95% 1.15–36.57) where the time of immunosuppression in this group was lower in those who died median 0.53 (IQR 0.46–0.53) vs 3.00 (IQR 1.26–78.00) months, $p=0.04$. Patients with SLE and CD reactivation showed a higher risk of death (18.8% vs 0.0%, $p=0.04$, OR: 1.23, CI95% 0.97–1.57). Survival rate of the entire cohort was 91.5%. The poorest survival rates were observed in who had CD reactivation (log rank $p=0.037$).

Conclusions: Reactivation was presented mainly as high *T. cruzi* load by qRT-PCR without clinical manifestation of CD. Use GC>40mg/day showed a higher risk of CD reactivation with cardiac involvement. Considering this data it's reasonable to screen serologic and molecular tests before to start treatment with immunosuppressive drugs.

Disclosure of Interest: None declared

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Back pain, mechanical musculoskeletal problems, local soft tissue disorders

SAT0583 LATERAL EPICONDYLITIS: WHAT IS NEW? DIAGNOSTIC, IMAGING AND TREATMENT. A SYSTEMATIC LITERATURE REVIEW

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Background: Lateral epicondylitis or tennis elbow is an extremely frequent disease, secondary to intratendinous degeneration of the common carpi extensor tendon. However, diagnosis and therapeutic management are still a challenge for the rheumatologist.

Objectives: To determine the available evidence regarding the diagnostic, imaging and treatment of epicondylitis.

Methods: A systematic review literature was performed using PUBMED. Only controlled trials, systematic literature reviews and meta-analysis were selected (Jan 1990 to May 2016). The MESH search words were "Tennis elbow", "Lateral elbow tendinopathy", "Diagnostic imaging" and "Therapeutics".

Results: 1314 potential articles were screened; 7 articles of clinical diagnosis, 21 of imaging and 18 of treatment were finally selected.

Diagnostic: No controlled trials were found about the diagnosis of the epicondylitis. The clinical tests employed in the retrieved clinical trials were based upon the experts' recommendation: lateral epicondyle palpation, resisted extension of the carpe and resisted extension of the 3rd and 4th fingers.

Imaging: Among the 21 articles identified, 1 article concerning plain Xray, 1 about scintigraphy, 10 of US and 10 of MRI were selected. One clinical trial, found plain Xrays were not helpful for the initial diagnosis. Ultrasound was found to be a sensitive (64–100%) and specific (36–100%) tool for the diagnosis, in one meta-analysis. Ten studies, within a systematic review, showed MRI was reported to be as sensitive (90–100%) as the ultrasound, with a greater specificity (83–100%). In addition, MRI showed better reliability (0.41–0.53 vs 0.73–1.00). Also, the two techniques showed a good correlation between the observed lesions and symptoms, severity and involvement of other structures. On the contrary, no data was found to support the use of imaging tests for follow-up.

Treatment: Among the 18 articles, 9 articles (within 4 systematic review and 5 randomized clinical trials) about pharmacologic treatment, 10 about the non-pharmacologic approach and 1 about surgery were selected. Corticoids injections were found to be effective in one meta-analysis at short-term and preferably for acute epicondylitis (Pain reduction at 1–3 weeks = 1.18 (95% CI 0.27–2.09), 4–8 = 1.30 (95% CI 0.55–2.04), 12–24 = -0.38 (95% CI -0.85–0.08). Similar results were found for NSAIDs. Five prospective randomized clinical trials, showed braces and carpal extension splints were reported to improve pain at rest and during exercise, in short term. Physical therapy was reported to be efficacious in pain and function too, in a systematic review. Therapies like rich platelet plasma injections, autologous serum and botulinum toxin showed weak evidence.

Conclusions: No high quality trials for epicondylitis management were found in this systematic review. The diagnostic was based upon clinical presentation and physical exam. Ultrasounds and MRI seem to play a role on imaging diagnosis but not in follow-up. Corticoids injections and NSAIDs are effective in short term. Other studies are needed to evaluate other therapeutic modalities.

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SAT0584 THE ROLE OF MRI INTERPRETATION IN PATIENTS WITH ROTATOR CUFF DISEASE

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Background: Shoulder pain is a common musculoskeletal complaint, roughly equal in incidence to neck pain (1). The shoulder pain syndrome has a prevalence to 47% in general population (2) and an incidence to 87–100.000 persons per year, an increasing indicator in the latest years (3). The identified etiology of painful shoulder were: rotator cuff tendinopathies (85%), impingement syndrome (74%), acromioclavicular joint involvement (24%), adhesive capsulitis (15%) si radiated pain (7%) (4). MRI imaging of rotator cuff disease, features of impingement are the techniques of choice at most institutions (5,6).

For all physicians, the shoulder is a complex joint, with difficulty in clinical and MRI examination. The type of therapy (medical, physical or surgical) can be established according with MRI conclusion, but sometimes this was a debate between physicians.

Objectives: To assess the concordance between two radiologists in interpretation of the same shoulder MRI in patients with rotator cuff disease.

Methods: Our prospective observational study included 51 patients (median age 57±9.9 years, 70.6% female) with nontraumatic shoulder pain. The assessment had included a clinical examination of the shoulder for inclusion criterias, lab tests for exclusion an inflammatory diseases and shoulder MRI with purpose to pathological diagnose of cuff rotator disease. Two experienced radiologists independently, blindly and retrospectively interpreted the MRI images. One of the radiologist had more MRI trainings and do daily musculoskeletal MRI images. We have analized the each MRI changes, as rotator cuff tendinopathies (tendinitis, tendinosis, tears), bicipital tendinopathy and other changes (subacromial bursitis, impingement syndrome, retractile capsulitis). Statistical analysis was performed using SPSS-18 and a p-value <0.05 was considered for statistical significance.

Results: There was identified a statistically significant difference between readers. There was a poor to moderate concordance (Cohen's Kappa<0,40, $p<0.05$) between MRI interpretations for supraspinos tendinopathy, subacromial bursitis, capsulitis, but a good agreement between for subscapular tendinosis (accuracy=98%, Kappa=0,79, $p=0.000$) and perfect compatibility (accuracy=100%, Kappa=1, $p=0,000$) for teres minor tendinitis. The poorest concordance between readers was in impingement syndrome (compatibility=55%, kappa=0,11, $p>0.05$).

Conclusions: The MRI examination is significant in rotator cuff disease only when the radiologist is overtrained for shoulder, otherwise the technique is useless and doubtful in clinical practice.

References:

- [1] McCarthy DJ, Koopman WJ, Arthritis and Allied Conditions, 12th Edition.
- [2] Ole M Ekeberg et al, Clinical, socio-demographic and radiological predictors of short-term outcome in rotator cuff disease. BMC Musculoskeletal Disorders 2010, 11:239.
- [3] White JJ et al, An epidemiological study of rotator cuff pathology using The Health Improvement Network database. Bone Joint J. 2014 Mar; 96-B(3):350–3.
- [4] Oster AJ et al, Diagnosis and relation to general health of shoulder disorders presenting to primary care, Rheumatology 2005; 44: 800–805.
- [5] Berquist TH, Musculoskeletal Companion, Second Ed, Lippincot, 2007.
- [6] Roy J-S et al, BrJSportsMed 2015; 49:1316–1328.

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SAT0585 IS IT SAFE TO PERFORM JOINT PUNCTURES IN PATIENTS TREATED WITH DABIGATRAN?

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Background: The introduction of new oral anticoagulants provides us with a new therapeutic intervention and secondary prevention opportunity in stroke patients previously not well controlled with acenocumarol due to not compliance or other issues.

As with other anticoagulants or even antiplatelet agents, the attending doctor may hesitate to perform a joint puncture in patients receiving such treatments.

Objectives: The purpose of this study is to describe the four-year cumulative experience of joint and peri-articular punctures in patients receiving Dabigatran, a new oral anticoagulant recently introduced in our country.

Methods: We performed a systematic review of the records of patients who underwent a knee joint aspiration or periarticular shoulder joint puncture for diagnostic or therapeutic purposes and who were under treatment with dabigatran between the years 2012 and 2016.

For this purpose we conducted an search for electronic records within that period, using the search terms: "infiltration", "arthrocentesis" or "joint puncture" and "shoulder" or "knee" and "dabigatran" or it's brand names.

Follow up visits in either primary care (HORUS® Application) or emergency settings (CAJAL® Application) were analyzed, regardless of the main complain at admission, and the data was collected from this records.

Results: Between 2012 and 2016, 68 joint knee punctures and 49 periarticular shoulder punctures were performed in dabigatran patients. Of the 117 procedures, 78 (66.6%) were performed by attending physicians in Traumatology, Rheumatology or Physical Medicine and Rehabilitation, and the rest by internal medicine residents.

Of the 68 knee arthrocentesis, in 48 (70.5%) of the cases synovial fluid collection and infiltration were performed, while in the rest only infiltration was needed.

Of the 49 shoulder punctures, in 12 (24.4%) a bursocentesis was performed while in the rest only an infiltration was done.

16 knee and 17 shoulder punctures (23.5% and 34.6%) were ultrasound assisted procedures.

Among the patients with knee puncture, 11 (16.1%) came back before 15 days due to procedure related symptoms. Of these, 9 did so because of persistence of the main symptom or persistent pain and 2 because of increased pain. These two patients were studied sonographically and one of them had a hemarthrosis that was treated conservatively.

In the group of patients with shoulder puncture, 7 (14.2%) came back before the first 15 days and in all of them the cause was persistence of the main symptom. None of the patients required admission at the hospital. None of the patients with ecography-assisted procedures came back before the first 15 days.

No patient consulted due to bleeding after the first fifteen days. (There were no hemarthrosis cases after the first 15 days). The outcome of the procedure was not influenced by the person performing it (attending vs resident), however, all the echocardiographic procedures were performed by an attending.

Conclusions: Although it is a small population, this is to the best of our knowledge, the biggest published serie of dabigatran anticoagulated patients who underwent a large joint or periarticular puncture. We can conclude that this type of punctures are safe in patients with this characteristics. On the other hand, there is evidence that ecography-assisted procedures are more effective in this group of patients.

Disclosure of Interest: None declared

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SAT0586 RELATIONSHIP BETWEEN CORE STABILIZATION AND LOW BACK PAIN IN YOUNG PEOPLE

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Background: Low Back Pain (LBP) is a very common health problem that affects people of all ages. It has been observed that the increase in lumbar stabilization is effective in reducing back pain risk. A combination of local and global stability system is used to describe to core stability which is a key factor for enhancing lumbar stabilization. Exercise training focused on these groups of muscles could contribute to pain alleviation and spinal functional improvement.

Objectives: The aim of the study was to define relationship between core stabilization and low back pain in young people who were suffering from low back pain.

Methods: 290 individuals (144 male, 146 female), between 18 and 25 years of age were included in this study. Disability arising from low back pain was identified by using the Oswestry disability index, consisting of 10 questions with 6 choices (0–5 points for each question). The higher score is associated with more low back pain. The period of core stabilization was determined using Plank test in which the body is stand flat from shoulder to heels on foot and forearm and Side Plank test in which sitting on the forearm and standing on one side of the body with the legs parallel and the feet perpendicular and the body is held flat from the shoulder to the heels. The duration of ability to maintain Plank test was measured by a chronometer. Spearman correlation test used for statistical analyzing.

Results: In this study, the average of Plank test duration was 76.9±44.2 (sec), while the mean of the Side Plank test duration was 43.9±28.2 (sec) and Oswestry disability index total score was 6.3±5.5. A weak negative correlation was found between the Plank test and the Oswestry disability index ($p=0.03$; $r=-0.111$). And negatively correlated between the Side Plank and the Oswestry disability index ($p>0.05$). On the other hand, there was a positively moderate correlation between the Plank test and the Side Plank test ($p=0.00$; $r=0.656$). There was a weak negative correlation between age and Oswestry disability index ($p=0.014$; $r=-0.151$).

Conclusions: Results of the study indicated that increasing the duration of stabilization reduces the low back pain. For this reason, core muscles deserve a great deal of interest in order to reduce the problem of low back pain which is common among young population.

References:

- [1] Kibler, W. Ben, Joel Press, and Aaron Sciascia. The role of core stability in athletic function. Sports medicine 36.3 (2006): 189–198.
- [2] Zazulak, Bohdanna T., et al. The effects of core proprioception on knee injury: a prospective biomechanical-epidemiological study. The American journal of sports medicine (2007).

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SAT0587 SCHOOL BAGS WEIGHT ARE NOT ASSOCIATED WITH LOW BACK PAIN IN SCHOOLCHILDREN IN CAMEROON

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Background: Data are mixed on the role of school bags in the occurrence of low back pain in pupils.

Objectives: Thus, we carried out this study with the aim to determine if the school bags were a factor associated with low back pain in Cameroonian schoolchildren.

Methods: We performed a cross-sectional study between December 2015 and April 2016 in 10 primary schools of the city of Douala, Cameroon. A questionnaire was submitted to the students of these different schools. Informed and signed consent of their parents were obtained. Sociodemographic and clinical data were collected, as well as the weight of each school bags. A $p<0.05$ was significant.

Results: We included 1075 pupils (543 boys, 532 girls). The mean age was 11 ± 1 years (8–16 years). BMI was normal in 928 children (86.5%). The prevalence of low back pain was 12.3% (132 children: 81 girls and 51 boys). Sixteen children had already met a physician for low back pain.

The mean weight of the school bag was 4.9 ± 1.9 kg, with 369 children (57.7%) with a school bags weight $\geq 15\%$ of their body weight in private schools compared with 56 (12.9%) in public schools. We had 99 children with low back pain with a school bag weight $\geq 10\%$ of their body weight (Table 1). We didn't find any relationship between low back pain and the weight of the school bag, regardless of gender, BMI, age of pain, type of school, distance from home to school, way of transportation, and age ($p>0.05$). However, the exception was found in girls aged from 8 to 10 years with a school bag weight $> 15\%$ of their body weight ($p=0.05$). Furthermore, in univariate analysis, factors associated with low back pain were ($p<0.05$): age, history of low back pain in at least one parent, competitive sport, a bad seated position on school benches. In multivariate analysis, factors associated with low back pain were female, competitive sport, and low back pain in at least one parent (Table 2).

Table 1. Relationship between weight of school bag and body weight of pupils with low back pain ($n=132$)

Weight of the school bag in relation to the weight of the child	Number of pupils, n (%)	p
<5%	3 (5,5)	–
5–10%	30 (11,7)	0,09
10–15%	46 (13,6)	0,10
> 15%	53 (12,5)	0,19

Table 2. Factors associated with low back pain in children

Variable	OR	95% CI	p
Age	0.93	0.81–1.06	0.25
Sex	1.73	1.19–2.52	0.004
Competitive sport	1.61	1.03–2.53	0.038
Low back pain in parents	1.88	1.23–2.89	0.004

Conclusions: The weight of the school bags was not associated with low back pain in Cameroonian schoolchildren (except for girls aged from 8 to 10). However, female, competitive sport and low back pain in at least one parent were associated to low back pain.

Disclosure of Interest: None declared

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SAT0588 HEALTHCARE WORKERS ARE NOT MORE AT RISK TO LOW BACK PAIN THAN OTHER OCCUPATIONS

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Background: Low back pain is common among healthcare workers but is more frequent than in other occupations?

Objectives: In order to answer this question, we carried out this study with the aim of determining if healthcare workers were more at risk for low back pain in the same institution than non-healthcare workers, administrative and technical workers.

Methods: We performed a survey on all permanent workers ($n=584$) of the Douala General Hospital in Cameroon from January to May 2016. Socio-demographic characteristics of workers (distinction with different occupations – healthcare workers, administrative workers, technical workers) and the main features of low back pain were collected. A $p<0.05$ was significant.

Results: Of the 584 questionnaires distributed, 474 responses were obtained (81.1%). We excluded 27 for incomplete data. 447 were retained for the final analysis: 296 healthcare workers, 79 administrative workers, and 72 technical workers. The mean age was 40 ± 10 years [22–66 years] and 258 (57.7%) were female. Mean BMI was 27 ± 4.3 kg/m² with 103 (23%) obese.

At the end of the study, 252 (56.4%) workers described low back pain, including 170 (57.4%) healthcare workers, 44 (55.7%) administrative workers and 38 (52.7%) technical workers. There was no significant difference between the different groups ($p>0.05$). Same for sex ($p=0.9$). The overall independent risk factors associated with low back pain were: seniority in their current position (OR 4.97, 95% CI 1.80–13.68, $p=0.002$), office chair quality (OR 3.06, 95% CI 1.29–7.26,