demand and low decision-making latitude), iso-strain (job-strain and lack of social support), and low-strain (relaxed or low-load work).

Results: Among the 261 participants in the study, 67.43% were women. The average age was 39.80 ± 9.4 years. The average length of professional service was 8.91 ± 7.30 years [1 - 35 years].

Regarding the job stress, 65.14% of the healthcare workers followed at least 11 patients per day. 78.54% had more than 40 hours of weekly work and 46.36% carried heavy loads during work. Job-strain was found in 58.62% of the participants, iso-strain in 7.66% and low-strain in 5.36%. MSDs were described by 225 participants (86.21%). They were mainly low back pain (68.44%), neck pain (52%) and shoulders' pain (37.78%).

In multivariate analysis, only weekly work > 40 hours (OR = 2.59; 95% CI 1.11–6.02, $p = 0.026$) and job-strain (OR = 3.14; 95% CI 1.33–7.39, $p = 0.009$) remained associated with the presence of MSD.

Conclusion: The healthcare workers in our study are exposed to a high psychological and physical job stress, causing MSDs. Ergonomic programs should be designed for these workers.

Disclosure of Interests: None declared

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AB0966

PREVALENCE OF SARCOPENIA IN PATIENTS WITH RHEUMATOLOGICAL DISEASES

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Background: The presence of sarcopenia in rheumatological patients is an independent predictor of morbidity and mortality in this cohort of patients. Patients with sarcopenia are characterized by lower physical activity, a tendency to depression and poor social adaptation.

Objectives: To assess the prevalence of sarcopenia in rheumatological patients.

Methods: 317 patients were examined, including 79 with systemic lupus erythematosus, 98 with rheumatoid arthritis, 72 with systemic sclerosis, 68 with spondyloarthritis. Among them, 201 women and 116 men, the age of patients ranged from 21 to 58 years, the average age at the time of inclusion of patients in the study was 41.1 ± 7.3 years. Sarcopenia was diagnosed using the method recommended by The European Working Group on Sarcopenia in Older People2.

Results: The frequency of occurrence of a decrease in the total mass of skeletal muscle according to the skeletal muscle mass index (ISMM) was 31.2% (99 patients), a decrease in muscle strength according to the wrist dynamometry was observed in 44.5% (141 patients), low skeletal muscle performance according to the results NIH Toolbox 4 Meter Walk Gait Speed Test in 42.8% (135 patients). The prevalence of suspected sarcopenia (probable sarcopenia) was 13.3% (42 patients) and sarcopenia 31.2% (99 patients), no cases of severe sarcopenia were detected. Statistically significant differences were obtained between groups of patients depending on the duration of rheumatological disease and the prevalence of sarcopenia ($\chi^2=19.328$ $p=0.001$).

Conclusion: The prevalence of sarcopenia in rheumatological patients in the general population was 31.2%.

Disclosure of Interests: None declared

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AB0967

OBESITY IMPACTS SURGICAL REPAIR OF ROTATOR CUFF TEAR IN A LOW-INCOME POPULATION

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Background: Rotator cuff tears (RCT) rank high among causes of shoulder pain in primary care. Surgical repair of RCT is indicated when judged refractory to clinical treatment. Comorbidities and environmental issues may impact the surgical result of RCT repair.

Objectives: to determine the impact of Obesity and Smoking in the outcome of low-income patients subjected to RCT repair.

Methods: Low-income (<5500,00 US\$ annual *pib per capita**) patients living in Fortaleza-CE, Brazil were prospectively (2016-2018) evaluated in the Orthopedic and Rheumatology Services of the Hospital Geral de Fortaleza. Demographics and clinical data focusing Obesity (BMI ≥ 30) and Smoking status (present/absent) were registered. Pain (0 – 10cm VAS) and functional shoulder score evaluation by the University of California at Los Angeles Shoulder Score (UCLA) and American Shoulder and Elbow Surgeons (ASES) scoring systems following at least 2 years post-operative follow-up were recorded.

Results: Thirty-nine individuals, 60.9 ± 7.1 years-old, 30 female (68.3%) with 5.1 ± 1.9 years follow-up were evaluated; 21 (44.7%) were Smokers and 12 (25.5%) Obese (BMI ≥ 30). Other comorbidities included 16 arterial hypertension, 18 dyslipidemia, 17 osteoarthritis, 4 rheumatoid arthritis, 1 gout. Pain VAS values were 5.1 ± 2.6 vs 3.1 ± 2.8 in Obese vs Non-Obese ($p=0.03$) and 4 ± 2.8 vs 3.37 ± 2.99 in Smokers vs Non-Smokers ($p=0.26$), respectively. UCLA was 22.4 ± 8.2 vs. 28.79 ± 5.6 in

Obese vs Non-Obese ($p=0.004$) and 26.2 ± 6.5 vs. 27.75 ± 7.18 ($p=0.25$) in Smokers vs. Non-smokers, respectively. ASES was 47.89 ± 28.3 vs. 68.1 ± 25.78 ($p=0.021$) in Obese vs. Non-obese and 58.98 ± 26.69 vs 65.3 ± 28.1 ($p=0.243$) in Smokers vs Non-Smokers, respectively.

Conclusion: Using Patient Reported Outcome instruments, these long-term data show that Obesity negatively impacts the outcome of surgical repair of RCT in low-income patients. Smoking status was apparently irrelevant but the number of cigarettes smoked daily was not considered. Emphasis on weight reduction is a practical, affordable though hard to implement measure that could improve surgical results when repairing RCT.

References: *https://pt.wikipedia.org/wiki/Lista_de_munic%C3%ADpios_do_Brasil_por_PIB

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AB0968

DIAGNOSIS OF INFLAMMATORY BACK PAIN (IBP) IN A LOW-INCOME POPULATION USING ASAS IBP DEFINITION

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Background: Inflammatory back pain (IBP) is an important entry criterion for identifying patients with axial spondyloarthritis. Due to the very frequent prevalence of chronic non-inflammatory back pain (CBP), IBP is difficult to differentiate and recognize in many clinical practices. CBP is a frequent diagnosis in populations with low socioeconomic status.

Objectives: To investigate whether IBP ASAS definition help discriminate from CBP in a low-income population.

Methods: A total of 202 consecutive individuals were directly interviewed in Fortaleza/Brazil, for the prevalence of IBP (ASAS definition), monthly family income (US\$), school education [≥ 8 school-years(SY)], and smoking habit (present/absent). People from all social levels were included.

Results: Mean age was 38.9 ± 12.9 years, 100 (49.5%) were male and 36 (17.8%) were smokers; 135 (66.8%) declared less than 730US\$ family earnings per month and 71 (35.1%) had less than 8 SY. Although 122 (60.3%) declared lumbar pain, in comparison, 29 (14.3%), 22 (10.9%) and 59 (29.2%) fulfilled ASAS, Berlin, and Calin's IBP criteria, respectively. There were 39 (58.02%) vs. 83 (61.5%) with vs. without CBP and 9 (13.4%) vs. 20 (14.8%) fulfilling vs. not fulfilling the ASAS IBP definition among those with more or less than 730US\$ earnings ($P>0.05$), respectively.

Conclusion: This is the first report on the prevalence of IBP in a very low-income population. Over one-third had less than 8SY, revealing very low literacy. Smoking prevalence was also low if compared to 28% smoking prevalence WHO estimates across Europe*. These IBP prevalence data are similar to those reported in wealthier populations, living in higher latitude. Data suggest that ASAS IBP definition may be used to discriminate patients with IBP from those with CBP, regardless of income and literacy. **References:** This is the first report on the prevalence of IBP in a very low-income population. Over one-third had less than 8SY, revealing very low literacy. Smoking prevalence (17.8%) was also low if compared to 28% smoking prevalence WHO estimates across Europe*. These IBP prevalence data are similar to those reported in wealthier populations, living in higher latitude. Data suggest that ASAS IBP definition may be used to discriminate patients with IBP from those with CBP, regardless of income and literacy.

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AB0969

GAINED WEIGHT DURING PREGNANCY AND LOW BACK PAIN: IS IT REALLY ASSOCIATED?

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Background: Back pain is known to be a common complaint during pregnancy explained by gained weight in this period. Besides, the incidence of low back pain (LBP) in postpartum has also been quoted to be non-negligible even after delivery.

Objectives: The aim of our study was to assess if the development of LBP during the post-partum period was correlated to gained weight after delivery.

Methods: In this prospective study, we assessed a survey of 60 women under the age of 35 for back pain symptoms during the postpartum period from day 1 to 18 months. A structured questionnaire using Google form was used. Data from this survey were then correlated with gained weight and pregnancy outcome, as well as women's history of LBP.

Results: We interviewed 60 women during their post-partum period. The mean age was 27.9 years old [24, 35 years]. Women were on average at 9 months of post-partum [1, 18 months]. The median height was 1.6 meters [1.54-1.74m]. The median weight at the moment of the study was 63.2 kilograms [48-80kg]. Before pregnancy, body mass index was 23.5 Kg/m² [17-34 Kg/m²]. The total gained weight at the end of pregnancy was 14 kg [12-29 kg]. Only 20% gained more than 15kg. LBP was experienced in 35% of cases with a mean delay of 3.2 months post-partum [1-8 months]. The prevalence of persistent LBP was noted in 26% of cases. However, no correlation was found between LBP and gained weight ($p=0.07$). Sixty five percent reported one or more significant episodes of back pain during their pregnancy. Significantly, more patients suffering from pain in pregnancy had history of previous back pain episodes when not pregnant ($p<0.001$), as well as during previous pregnancies ($p<0.001$).

Conclusion: No correlation was found between gained weight and occurrence of LBP. The main factors associated with the development of back pain were previous episodes of back pain while non-pregnant or pregnant.

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Paediatric rheumatology

AB0970

THE RELATION BETWEEN CONGENITAL STRUCTURAL MALFORMATIONS, DISC-VERTEBRA DEGENERATION AND DISC HERNIATION IN THE PEDIATRIC AGE GROUP

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Background: Disc/vertebral degeneration and disc herniation are rare causes of low back pain in childhood. Their relationship with congenital anomalies were reviewed in few studies in literature (1-3).

Objectives: To examine the relation between congenital structural malformations in the lumbar spine, early degeneration and lumbar disc herniation in pediatric age group patients with low back pain, and to determine the incidence of congenital structural malformations, disc/vertebral degeneration, and disc herniation.

Methods: Four hundred patients with LBP persisting for at least six weeks were included in the study. Demographic characteristics, physical examination findings, and laboratory and imaging results were recorded for all patients. Severity of pain was determined using a visual analog scale (VAS). Lumbar X-rays were examined for the presence of lumbosacral transitional vertebrae (LSTV) and spina bifida occulta (SBO). The incidence of disc/vertebral degeneration and disc herniation was investigated at the L4-5 and L5-S1 level in lumbosacral magnetic resonance imaging of patients with and without congenital malformation (LSTV-SBO).

Results: The study population consisted of 219 girls and 181 boys aged 10-17 years (mean age 14.9±1.9). Presentation symptoms were low back pain in 90.5% ($n=362$), and low back-leg pain in 9.5% ($n=38$). The mean VAS score was 5.3±1.0. LSTV was determined in 67 (16.8%) patients and SBO in 62 (15.5%). Disc herniation was determined in 68 patients, at the L4-5 level in 26.5% ($n=18$), at the L5-S1 level in 48.5% ($n=33$), and at both levels in 25% ($n=17$). Vertebral degeneration was present at the L4-5 level in 14 (8.6%) patients and at the L5-S1 level in 39 (23.9%), while disc degeneration was present at the L4-5 level in 21 (12.8%) patients and at the L5-S1 level in 31 (19.0%). No significant difference was observed in the incidence of disc/vertebral degeneration and disc herniation in patients with congenital malformation. Disc herniation was significantly more common in patients with disc degeneration ($p=0.003$, $p<0.001$). Congenital malformations were not observed in approximately 80% of patients without disc herniation and disc/vertebral degeneration.

Conclusion: The presence of congenital malformations does not appear to represent a risk factor for early degeneration and disc herniation in pediatric age group. Congenital malformations, early degeneration, and disc herniation may constitute an underlying pathology in pediatric patients with persistent low back pain.

References:

- Milčić G, et al. Causal connection of non-specific low back pain and disc degeneration in children with transitional vertebra and/or Spina bifida occulta: role of magnetic resonance--prospective study. *Coll Antropol*. 2012.
- Dang L, et al. Lumbar Disk Herniation in Children and Adolescents: The Significance of Configurations of the Lumbar Spine. *Neurosurgery*. 2015.

- Zhang B, et al. Lumbosacral Transitional Vertebra: Possible Role in the Pathogenesis of Adolescent Lumbar Disc Herniation. *World Neurosurg*. 2017.

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AB0971

LONG-TERM EFFICACY AND SAFETY OF CANAKINUMAB IN PATIENTS WITH SYSTEMIC JUVENILE IDIOPATHIC ARTHRITIS: RESULTS FROM A SINGLE-CENTER STUDY

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Background: Results from various phase 3 clinical studies have demonstrated the efficacy of canakinumab to treat patients with systemic juvenile idiopathic arthritis (sJIA). However, limited information is available on the long-term efficacy and safety of this drug to treat children with sJIA.

Objectives: To evaluate the long-term efficacy and safety of canakinumab in patients with sJIA treated at the National Medical Research Center of Children's Health, Moscow, Russia.

Methods: This was a prospective, single-center study that included canakinumab (CAN)-naïve patients diagnosed with sJIA following the International League of Associations for Rheumatology (ILAR) criteria and start receiving CAN treatment from 10/2012 to 03/2016. Patients included in this study also participated, for defined periods of time, in the clinical trial NCT02296424. Patients with active disease started treatment with canakinumab 4 mg/kg. A treat-to-target approach was used, canakinumab was discontinued in patients on clinical remission, either following the NCT02296424 protocol or by investigator's decision, and re-introduced in those patients who experienced a relapse afterwards. Disease characteristics and demographics were recorded at the time of diagnosis and initiation of treatment (study entry). Disease activity was evaluated periodically using the adapted JIA ACR core set measures, and percentages of patients with inactive disease and on clinical remission were calculated using the sJIA ACR criteria. Response to treatment was also evaluated by calculating modified ACR responses and JADAS-71 scores. Safety was assessed by collecting and classifying adverse events (AEs) at each visit.

Results: Nineteen patients presenting with sJIA were included in this study, with a median age at treatment initiation of 9.6 (interquartile range, IQR 6.4-11.1) years and a median disease duration of 4.4 (IQR 1.2-7.0) years. Most patients (17/19) had been treated previously with one or more biologic agents for sJIA. As of 23 December of 2019, the median time of follow up was 55.5 (47-71.7) months, with all patients being followed for at least 3.5 years and 5 patients followed for more than 7 years. As it is shown in figure 1, most patients (16/19) were on clinical remission one year after starting therapy, and this effect was sustained at year 3.5 (17/19). ACR 90 responses were observed in 84.2% (16/19) patients at one year and 94.7% (18/19) patients at 3.5 years, whereas JADAS-71 scores decreased from 15 (14: 28.5) at baseline to 0 (0: 0) at one year with 4/19 patients maintained with JADAS-71 >0; at 3.5 years, only one patient had JADAS-71 >0 (0.47, due to slight ESR increasing). Concerning the 5 patients with >7 years of follow up, three of them were in clinical remission for more than 3 years, including one who had discontinued therapy more than 2 years. Another patient had a relapse after attempting drug discontinuation, but recovered clinical remission after reintroducing canakinumab, and remained in this state for the last two years. The remaining patient has persistent low levels of disease activity during the last four years of follow up. AEs required hospitalization were reported in 36.8% (7/19) patients.