Table 1. Risk factors for low back pain according to occupational class

Risk factors	Healthcare workers OR (95% CI)	Administrative workers OR (95% CI)	Technical workers OR (95% CI)
Age (years)	1.00 (0.98–1.03)	1.10 (1.04–1.16)***	1.04 (1.01–1.09)
Sex ratio	1.15 (0.71–1.84)	1.99 (0.55–7.24)	0.84 (0.28–2.54)
Seniority in the firm	1.42 (0.76–2.64)	0.95 (0.24–3.83)	5 (1.4–17.83)**
Seniority in their current position	3.5 (1.2–10.6)*	1.04 (0.35–3.12)	11.3 (1.1–112.1)*
Number of hours worked per week	0.76 (0.26–2.21)	10.07 (1.02–99.69)*	–
Office chair quality	3.3 (1.1–10.4)*	5.97 (1.16–30.63)*	10 (0.6–164.9)
Heavy weight	1.10 (0.62–1.97)	2.27 (0.52–9.84)	4.2 (1.3–13.3)**
Vibrations	1.23 (0.67–2.27)	10.30 (0.81–130.73)	3.6 (1.2–10.6)**
Job satisfaction	0.35 (0.14–0.89)*	0.74 (0.10–5.58)	0.66 (0.17–2.53)

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

$p = 0.01$), and job satisfaction (OR 1.55, 95% CI 105–2.54, $p = 0.048$). The specific risk factors for each occupation are presented in Table 1.

Conclusions: In an institution like Douala General Hospital, where the administrative, technical and healthcare workers are subjected to the same professional stress in terms of quality of care and performance, we did not find any difference on prevalence among these 3 occupations.

Preventive measures must be performed for all staff but need to be tailored to each occupation.

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SAT0589 THERAPEUTIC EDUCATION IN THE MANAGEMENT OF FEARS AND BELIEFS IN PATIENTS WITH CHRONIC LOW BACK PAIN

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Background: The notions of apprehension-avoidance and beliefs are among the psychosocial factors associated with the occurrence, maintenance and strengthening of the chronic painful process.

Therapeutic education is increasingly described in the literature as a means to manage these factors in order to limit the transition to a chronic stage.

Objectives: The aim of this study is to examine the effect of therapeutic education on fears and beliefs in chronic low back pain.

Methods: A prospective, comparative study was conducted with two groups of 50 patients each one having chronic low back pain. Both groups had benefited from the same physical rehabilitation program. The second group concurrently attended therapeutic education sessions.

Fears and beliefs of patients and their kinesiophobia were evaluated with the FABQ: Fear-Avoidance beliefs questionnaire and the TSK: Tampa scale of kinesiophobia for the evaluation of kinesiophobia index.

Results: The initial evaluation of apprehension-avoidance showed a high FABQ score in two groups. Management that was limited to physical rehabilitation demonstrated no effect on the apprehension-avoidance indices evaluated by the FABQ scale. However, there was a clear improvement in apprehension and avoidance in the G2 and with a statically significant difference ($P = 0.03$).

An initial and high kinesiophobic score (≥ 48) was noted in two groups. G1 patients showed no significant improvement in their TSK scores after the end of the program. G2 patients who benefited from a therapeutic education workshop improved their TSK scores significantly after the program completion compared to G2.

Conclusions: The integration of the patient into the therapeutic education workshops improved the behavior of apprehension and kinesiophobia. This further supports the usefulness of applying cognitive therapy to our patients when restructuring of preconceived ideas about movement and physical activities.

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SAT0590 FEARS AND BELIEFS IN PATIENTS WITH CHRONIC LOW BACK PAIN AND SICK LEAVE: WHAT RELATIONSHIP?

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Background: The occupational impact of low back pain is generally assessed in terms of absenteeism and duration of sick leave. A non-return to work greater than eight days has been considered a poor prognosis factor. Several psychosocial factors have been identified as the original cause.

Objectives: Studying the impact of erroneous beliefs, avoidance behaviors, apprehension and fear of movement on sick leave in patients with chronic low back pain.

Methods: A prospective study was conducted in patients with chronic low back pain patients. The notion of apprehension-avoidance was evaluated by the Fear Avoidance Beliefs questionnaire (FABQ), fear of movement by the Tampa scale of kinesiophobia (TSK) and functional disability by the Functional Disability Scale Of low back pain: EIFFEL (French version of Roland Disability Questionnaire).

A study of the correlations between these different parameters and the duration of sick leave was carried out subsequently.

Results: Our study included 100 patients. The findings revealed a 95% absenteeism rate including 67% with a sick leave of more than one month. The FABQ, TSK and EIFFEL scores were high.

The statistical study concluded that there was a positive and significant correlation between sick leave time, fears and erroneous beliefs ($r = 0.147$, $P = 0.033$). We also found a positive and significant correlation between the duration of sick leave and kinesiophobia. There were no statistically significant correlations between sick leave and functional disability.

Conclusions: The high scores of FABQ and TSK confirm the important role of false beliefs and fear of movement in the genesis of chronicity in chronic low back pain as reported in the literature. The positive correlations found in our study reinforce the theory of the deconditioning of these patients following their beliefs. Management of these factors would be an important contribution to limit sick leave times in chronic low back pain.

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SAT0591 LOCAL STEROID INJECTION VERSUS WRIST SPLINTING FOR CARPAL TUNNEL SYNDROME: A RANDOMIZED CLINICAL TRIAL

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Background: Carpal tunnel syndrome (CTS) can lead to significant symptoms and loss of hand function. It also has a great socio-economic impact. However, there is no consensus regarding its best treatment up to this moment. Local steroid injection and wrist splinting are among the most popular nonsurgical treatment options. Previous studies have confirmed their respective effectiveness. However, there is no high quality head to head comparative study regarding the two treatments in the literature.

Objectives: To compare the efficacy of local steroid injection and nocturnal wrist splinting for CTS.

Methods: We conducted a prospective randomised parallel clinical trial comparing the efficacy of local steroid injection and nocturnal wrist splinting in patients with CTS. The well validated and disease specific Boston Carpal Tunnel Questionnaire (BCTQ) was employed and its score at 4 weeks after treatment was used as the primary outcome measure. Important secondary outcomes included the patient satisfaction, the change of an objective finger dexterity test 9-hole-peg test, and the side effects.

Results: Twenty-five patients in the local steroid group and 25 patients in the wrist splinting group completed the study procedures. The baseline patient and clinical characteristics of the two treatment groups were similar. At 4 weeks after treatment, there was significant improvement of the BCTQ scores in both the steroid group and splinting group. There was improvement of the 9-hole-peg test only in the steroid group but not in the splinting group. However, there was no statistically significant difference in the changes of BCTQ scores between the two groups after treatment. Patient satisfaction score was higher in the steroid group. Patient in the steroid group took less painkillers after treatment. Four patients developed side effects after splinting and 3 after local steroid injection, which was not statistically significant.

Conclusions: Although local steroid injection and nocturnal wrist splinting were equally effective in the treatment of patients with CTS, only the former improved objective hand function. Local steroid injection also resulted in better patient satisfaction and less painkiller use without causing more side effects.

Disclosure of Interest: None declared

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SAT0592 EFFECT OF INTERFERENTIAL CURRENT THERAPY IN PATIENTS WITH SUBACROMIAL IMPINGEMENT SYNDROME: A RANDOMIZED, DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY

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Background: Shoulder pain is one of the most common types of musculoskeletal pain in the adult population. Subacromial impingement syndrome (SIS) has been reported to be the most frequent etiologic factor for shoulder pain (1). A conservative approach comprising non-steroid anti-inflammatory drugs (NSAID), subacromial injections, exercise, and several physical therapy agents is recommended as the first step treatment for SIS (2). Although interferential current (IFC) is a common electrotherapeutic modality used to treat musculoskeletal pain, there isn't any randomized controlled trial investigating its clinical efficacy on SIS (3).

Objectives: To investigate the effectiveness of IFC treatment in patients with SIS.

Methods: In this double blind, placebo controlled study, patients with shoulder pain, who had been diagnosed SIS according to clinical evaluation and subacromial injection test were randomly assigned to the IFC or placebo groups. Exercise, cryotherapy, and NSAID were applied to the all groups. Daily 20 min per session, 5 days per week, for 2 weeks 10 sessions IFC with alternative method were applied to the IFC group while sham IFC therapy were applied to the placebo group with the same protocol. Visual analog scale (VAS), Constant Murley Scale (CMS) and Shoulder Disability Questionnaire (SDQ) were used for evaluation at baseline, post-treatment and 1 month post-treatment.

Results: A total of 60 patients were completed the study; 26 (43.3%) were male and mean age was 50.02±9.10 years. There was not a significant difference in demographic and clinical data of the patients between the IFC (n=30) and placebo (n=30) groups (p>0.05). Significant improvement in all parameters was observed on post-treatment and 1 month post-treatment evaluations compared to baseline evaluations in both groups (p<0.01). Comparison of the VAS, CMS and SDQ scores between the two groups did not show significant difference either pre-treatment or post-treatment (p>0.05).

Conclusions: This study showed that IFC treatment does not provide additional benefit to NSAID, cryotherapy and exercise program in the treatment of SIS. Further studies are needed to investigate the long-term effects of IFC therapy.

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SAT0593 GENDER-SPECIFIC ASSOCIATIONS BETWEEN FAT MASS AND MUSCULOSKELETAL PAIN IN COMMUNITY RESIDENTS: A 3-YEAR LONGITUDINAL STUDY

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Background: Increase in fat mass is correlated with musculoskeletal pain

Objectives: In this study, we sought to delineate the prospective relationship between fat mass parameters and the musculoskeletal pain in Korean community residents.

Methods: In the Korean Health and Genome Study, 1,325 participants (mean age 60.2 years, 56.2% women) who completed pain questionnaires and underwent dual x-ray absorptiometry to calculate body composition had 3 year follow-up data on pain. Pain was categorized according to number of pain regions. After 3 years of follow-up, subjects were classified into the followings: 1) no pain both at baseline and at 3 years (no pain), 2) any pain (one, two or more, or widespread regions) at baseline and no pain at 3 years (transient pain), 3) no pain at baseline and any pain at 3 years (new pain) 4) any pain both at baseline and at 3 years (persistent pain). 1) and 2) were grouped as no/transient pain group (no pain) and 3) and 4) as new/persistent pain group (pain)

Results: Female gender and obesity were 2 significant factors associated with the persistence or development of pain. Total fat mass and fat:muscle mass ratio were significantly correlated with pain, and the odds ratios for pain were significantly increased in subjects in the highest quartile of fat muscle ratio after adjustment among female subjects only. Among normal weight subjects, those without metabolic syndrome were less likely to belong to the pain group, especially among women.

Conclusions: The association of fat mass and pain was only significant among females

Disclosure of Interest: None declared

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SAT0594 THE EFFECT OF RADIAL EXTRACORPOREAL SHOCK WAVE THERAPY (RESWT) IN THE TREATMENT OF TRIGGER FINGER

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Background: Trigger finger is a stenotic tendovaginitis characterized by hand pain and dysfunction, commonly encountered and easily recognizable (1). RESWT is frequently used in the treatment of soft tissue pathologies such as lateral epicondylitis, plantar fasciitis and calcific rotator cuff tendinitis (2-3). However, there is no study examining whether RESWT is effective on the trigger finger or not.

Objectives: The aim of this study was to investigate the effect of Radial Extracorporeal Shock Wave Therapy (RESWT) in the Treatment of Trigger Finger.

Methods: This study was carried out on 16 patients (18 patient hand) who had been diagnosed with trigger finger that grade 1,2,3 according to quinnell classification. Patients were carried out as a single group. 16 patients (18 patient hand) with trigger fingers were applied to ten-sessions, twice a week of RESWT (2000 impulses, 2 bar, 10 Hz). Pain scores (Numeric Pain Rating Scale - NRS), general functional capacities (The Disabilities of the Arm, Shoulder and Hand Score (Quick-DASH)), range of motion, grip strength (GS) and pinch strenght (PS) were assessed at every week for five weeks during treatment and 3 months after treatment.

Results: 13 female and 3 male patients over 18 years of age were evaluated. In the evaluations performed every week during 10 sessions of RESWT treatment and 3 months after treatment, decrease in pain levels and increase in general functional capacity, range of motion, grip strength and pinch strength were observed in the patients treated (p<0.001) (table 1).

Table 1: Comparison of range of motion of the thumb finger and 2-5. Finger, comparison of pain, grip strenght, pinch strenght and general functional capacity

	1 week (IQR)	2 week (IQR)	3 week (IQR)	4 week (IQR)	5 week (IQR)	3 month (IQR)	p value
MCF joint flexion	45.00 (40.00;50.00)	48.00 (40.00;50.00)	49.00 (40.00;52.00)	50.00 (40.00;58.00)	50.00 (40.00;60.00)	50.00 (50.00;65.00)	0.004
IF joint flexion	15.00 (00.00;35.00)	20.00 (00.00;42.00)	28.00 (00.00;45.00)	39.50 (00.00;50.00)	45.00 (00.00;60.00)	55.00 (00.00;60.00)	<0.001
MCF joint flexion 2-5	80.00 (50.00;90.00)	80.00 (50.00;90.00)	82.50 (52.00;90.00)	82.50 (54.00;90.00)	82.50 (55.00;90.00)	90.00 (60.00;90.00)	<0.001
PIF joint flexion 2-5 finger	100.00 (40.00;110.00)	100.00 (50.00;115.00)	100.00 (55.00;115.00)	100.00 (65.00;118.00)	100.00 (70.00;120.00)	110.00 (90.00;120.00)	<0.001
DIF joint flexion 2-5 finger	50.00 (20.00;75.00)	55.00 (20.00;75.00)	60.00 (30.00;77.00)	61.50 (40.00;77.00)	61.50 (50.00;80.00)	70.00 (60.00;85.00)	<0.001
NRS	7.00 (0.00;10.00)	6.00 (0.00;7.00)	4.00 (0.00;7.00)	3.00 (0.00;7.00)	2.00 (0.00;7.00)	0.00 (0.00;7.00)	<0.001
GS	16.00 (4.00;30.00)	17.00 (12.00;40.00)	16.00 (10.00;36.00)	18.00 (8.00;36.00)	19.00 (8.00;28.00)	18.00 (12.00;36.00)	=0.001
PS	3.00 (1.00;10.00)	3.50 (2.00;11.00)	3.00 (1.00;9.00)	4.00 (2.00;12.00)	4.00 (2.00;12.00)	4.00 (2.00;12.00)	<0.001
Quick-DASH	42.00 (0.00;70.45)	39.76 (0.00;70.45)	38.40 (0.00;68.18)	18.18 (0.00;70.45)	4.54 (0.00;68.18)	0.00 (0.00;25.00)	<0.001

Friedman test, p<0.001, MCF: Metacarpofalangeal, IF: Interfalangeal, PIF: Proximalinterfalangeal, DIF: Distalinterfalangeal, IQR: Interquartile Range

Conclusions: According to our results; RESWT might be an effective method to decrease pain severity, improve general functional capacity, range of motion, grip strength and pinch strength in patients with trigger finger.

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SAT0595 EFFECTIVENESS OF SHORT WAVE DIATHERMY TREATMENT IN PATIENTS WITH SUBACROMIAL IMPINGEMENT SYNDROME AND VALUE OF NIGHT PAIN ON PATIENT SELECTION: A DOUBLE-BLIND, RANDOMIZED, PLACEBO-CONTROLLED TRIAL

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Background: Shoulder impingement syndrome (SIS) is a common causes of shoulder pain and the night pain is a frequent symptom of this condition (1,2). Short wave diathermy (SWD) is a deep diathermic agents used in the treatment of