

³Nuffield Orthopaedic Centre, Spinal Surgery, Oxford, United Kingdom

Introduction: To assess the outcome of a novel method of preventing facial pressure ulcers in spinal surgery and a review of literature. **Material and Methods:** A prospective trial using a novel method of facial protection using paraffin tulle gras dressing to cover bony prominences during spinal surgical procedures was performed. Patients were reviewed at 24 hours and 6 weeks. A telephone survey was also conducted post discharge. **Results:** Over an 8-month period, 12 patients (7F: 5M, age 9-72 years) underwent spine surgery for tumour stabilisation (n = 7), deformity correction (n = 4) and degenerative presentation (n = 1) with mean operative time of 472 minutes (range 150 – 785 minutes) in prone position. All patients were managed by the same team using an agreed protocol. No pressure ulcers were noted in our study. One patient sustained minimal erythema which resolved after 24 hours. All patients were satisfied with the care received. **Conclusion:** Facial pressure ulcers though much reduced are still common in spinal surgery. The common factors are the long duration of surgery, shear, friction, moisture and intrinsic factors. Our strategy of an appropriate facial support and constant vigilance helped eliminate the incidence of iatrogenic facial ulcers in spinal surgery.

1795

P504: What Are the Patients With Column Pathology Looking for in Internet?

Maria Luz Suarez-Huerta¹, Haridian Helena De Armas Baez¹, Alejandro Gomez-Rice¹, Iria Carla Vazquez-Vecilla¹, Miguel Carvajal-Alvarez², and Lorenzo Zuñiga-Gomez¹

¹Hospital Universitario De Getafe, Madrid, Spain

²hospital Universitario De Cabueñes, Spain

Introduction: The search for medical information is very frequent today. The Internet represents a space for information, communication and action on health. This supposes a transformation of the healthcare practice and the habits of our patients, beginning to appear the terms of eHealth and informed patient. **Material and Methods:** This is an observational study of patients between 18 and 70 years old who were seen in the spine unit consultation from October 1 to November 29, 2019. Sociodemographic variables, treatments, complications and Internet search habits (pages, frequency and information) were collected. A statistical analysis is performed with SPSS v22.0 software. Our objective is to know the habits of our patients when consulting medical information on the Internet. **Results:** We have included 109 patients, 51% were women, the mean age was 50 years and the BMI was 28. 73% of patients use the Internet daily, 90% of

these through their mobile phone. Men in our series use mobile phones more than women ($P: .03$) and young people often consult medical information in Blogs ($P: .01$). The most visited pages are news (29%) and only 10% have never looked for medical information. 51% have searched about their spinal pathology and only 7% admit having sought information about their doctor. 67% of our patients refer that the information obtained has not modified the trust they have in their doctor. **Conclusion:** The use of the Internet from the mobile phone to consult health information is very frequent, but patients tend to use little the pages of medical and scientific societies.

Spine Biologics

576

P505: Mesenchymal Stem Cell Therapy for Traumatic Spinal Cord Injury - Is the Hype Worth the Hope?

Sathish Muthu^{1,2} and Madhan Jeyaraman^{1,3}

¹Orthopaedic Research Group, Coimbatore, India

²Government Hospital, Velayuthampalayam, Karur, India

³Sharda University, School of Medical Sciences and Research, New Delhi, India

Introduction: Several preclinical studies and clinical trials have revealed that stem cells can be used to repair spinal cord injury (SCI) because of their self-renewal property and capacity for neuronal-like differentiation into a functional neural cell to form new synapses, release various neurotrophic factors, and provide an appropriate conducive microenvironment to promote neuronal repair. Although the reliability of such treatment methodology for SCI is being tested in human subjects by a few clinical trials, they provide us with conflicting results and thereby clouding the only ray of hope for SCI patients. Hence, we aim to analyze the evidence in literature on efficacy and safety of Mesenchymal Stem Cell(MSC) therapy in human subjects with traumatic Spinal Cord Injury(SCI) and identify its potential role in the management of SCI. **Materials and Methods:** We conducted independent and duplicate electronic database searches including PubMed, Embase and Cochrane Library till May 2020 for studies analyzing efficacy and safety of stem cell therapy for SCI. AIS grade improvement, ASIA sensorimotor score, activities of daily living score, residual urine volume, bladder function improvement, SSEP improvement and adverse reactions were the outcomes analyzed. Analysis was performed in R-platform using OpenMeta[Analyst] software. **Results:** 19 studies involving 670 patients were included for analysis. On analysis intervention group showed statistically significant improvement in AIS grade ($P < .001$), ASIA sensory score ($P < .017$) along with light-touch ($P < .001$) and pinprick ($P = .046$), bladder function ($P = .012$), residual urine volume

reduction ($P = .023$) and SSEP improvement ($P = .002$) respectively. However, no significant difference was noted in motor score ($P = .193$) and activities of daily living score ($P = .161$). Although intervention group had significant increase in complications ($P < .001$), no serious or permanent adverse events were reported. On subgroup analysis, low concentration of MSC ($<5 \times 10^7$ cells) and initial AIS grade-A presentation showed significantly better outcomes than their counterparts. **Conclusion:** Our analysis establishes the efficacy and safety of MSC transplantation in terms of improvement in AIS grade, ASIA sensory scores, bladder function and electrophysiological parameters like SSEP compared to controls, without major adverse events. However, further research is needed to standardize dose, timing, route and source of MSCs used for transplantation.

1021

P506: A Multicentered Randomized Prospective Double-Blind, Placebo-Controlled Trial on the Clinical Outcomes Using Capacitively Coupled Electric Fields Stimulation After Instrumented Spinal Fusion

Leo Massari¹, Giovanni Barbanti Bròdano², Stefania Setti³, Gaetano Caruso¹, Enrico Gallazzi⁴, Simona Salati³, and Marco Brayda Bruno⁴

¹Orthopaedic Institute of University, Ferrara, Italy

²Rizzoli Orthopaedic Institute, Bologna, Italy

³Igea Spa, Research and development, Carpi, Italy

⁴Galeazzi Orthopaedic Institute, Spine Surgery III, Milan, Italy

Introduction: Lumbar Spine Fusion (LSF) is used to treat lumbar degenerative disorders. Methods to improve the functional recovery of patient undergoing LSF is one of the main goals in daily clinical practice. The objective of this study is to assess whether biophysical stimulation with Capacitively Coupled Electric Fields (CCEF) can be used as adjuvant therapy to enhance clinical outcome in Lumbar Spinal Fusion (LSF)-treated patients. **Material and Methods:** Forty-two patients undergoing LSF were assessed and randomly allocated to either the active or to the placebo group. Follow-up visits were performed at 1, 3, 6, 12 months after surgery; long term follow-up was performed at year 10. Visual Analogue Scale (VAS), the Oswestry Disability Index (ODI) and the 36-item Short Form Health Survey (SF-36) questionnaire were recorded. **Results:** This study demonstrates a significant improvement in CCEF-treated patients at 6 and 12 months follow-up for SF-36, and at 12 months follow-up for ODI values. Based on SF-36 and ODI scores, we reported a significantly higher percentage of successful treatments at 12 months in the active compared to the placebo group. Moreover, in a subset of patients at 10 years follow-up a significant difference was reported in VAS and ODI scores

between groups. **Conclusion:** The results demonstrate that 3 months of CCEF treatment immediately after surgery is effective in reducing ODI and improving SF-36 score, and that these benefits can be maintained up to 12 months. In a subset of patients, these positive outcomes are retained up to 10 years. This study suggests that CCEF stimulation can be used as an adjunct to LSF for spine diseases, for increasing overall Quality of Life and improving patients' functional recovery. CCEF is safe and well tolerated, compatible with activities of daily living.

1056

P507: Use of Narcotic After Spine Surgery: A Requirement or a Privilege

Muhammad Tahir Karim¹, Shahid Ali¹, and Sheharyar Abid¹

¹Jinnah Hospital, Department of Orthopaedic Surgery, Lahore, Pakistan

Background: There is a growing concern that the use of prescription opioids following surgical interventions, including spine surgery, may predispose patients to chronic opioid use and abuse. Deyo et al. found out that rates of opioid prescribing in the US and Canada are two to three times higher than in most European countries. This ratio is even higher when compared with Asian countries. Limited or no data exist evaluating risk factors associated with prolonged opioid use following spine surgery. We sought to estimate the proportion of patients who didn't need to use opioids after the end of 1st prescription following common spinal surgical procedures and were needlessly given narcotics for prolonged periods of time. **Objective:** The purpose of this study was to find out if the narcotic analgesics are really required as much as they are usually prescribed after spine surgeries or do they just work as a privilege for the patients and the surgeon. **Study design/setting:** This is a retrospective observational study. **Methods:** The study utilized the data of patients operated in a major Tertiary Care Hospital in Lahore from October, 2019 to June, 2020. Adults who underwent 1 of 4 common spinal surgical procedures (discectomy, decompression, lumbar posterolateral fusion or lumbar interbody arthrodesis) were identified. Patients with causes of pain other than spine were excluded from the study. Patients were discharged on Tab Tonoflex-P® [Paracetamol:325mg, Tramadol (HCl):37.5 mg] twice daily per oral for 2 weeks after discectomy or decompression surgeries and for 4-6 weeks after lumbar fusion surgeries. Patients were asked about the need of narcotics use after the specified period of time. The collected data was then analysed in SPSS v25.0. **Results:** This study included 89 patients. About 88% of the patients didn't feel the need to continue the narcotic pain killers after 1st post-operative prescription. Less than 12% of the subjects required to continue the narcotics after the end of their first prescription. **Conclusion:** By the end