

## P52: LUPUS – Lumbar Puncture with Ultrasound Study. International Multicentre Prospective Trial

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Introduction: Practical experience shows, that lumbar punctures are more challenging in the obese population. Not only obesity is responsible for a difficult lumbar puncture. Other factors contributing to a difficult LP approach are: fibrous tissue formation due to repeated LPs, spinal abnormalities and non-cooperating subjects. The palpation is widely used to identify the puncture site, but it is usually difficult to accurately locate the puncture site in obese patients.

Ultrasound can be used to identify the landmarks in the lumbar region, the appropriate puncture point can be determined.

We hypothesize that ultrasound assisted determination of the puncture point in obese patients decreases the incidence of multiple punctures and re-directions and enhances the safety.

**Methods:** We present the protocol of a prospective randomized multicentre study to evaluate the impact of ultrasound imaging on the success rate of lumbar puncture in

obese patients (Body mass index >25). All patients indicated for LP and a BMI>25 will be randomized into two equal-sized groups for location of the puncture site.

Results: The success rate, the number of puncture attempts, the re-directions of the needle, the complication rate (e.g. postpunctional headache, hearmoragic CSF) will be compared between the two groups and analysed.

**Discussion:** Recruitment running, centers interested in participation welcome.

## P53: Long-term Coma State and the Bedrest Syndrome

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Introduction: Patients with prolonged coma state such as Apallic Syndrome often develop secondary complications. These especially include changes in central and peripheral nervous system as well as in the musculo-skeletal and cardiovascular system. The aim of the study is to investigate the characteristics and progression of these degenerative processes in long-term bed rest and immobilization. The results of this explorative study should provide a clearer picture of the symptomatology and a better understanding of the pathophysiological changes following the so-called Bedrest Syndrome.

**Methods:** 20 patients are enrolled in the study based on sample size estimation. Electrophysiological investigation included EEG, Evoked Potentials (SSEP, MEP), ENG, F-waves, EMG, ECG and heart rat variability.

Imaging investigation was done with CT-based osteodensiometry and MR scan of the neuroaxis. Investigation of the cardio-vascular system comprised Holter ECG and investigation of the N-terminal B-type natriuretic peptide.

Results: Up to now 5 enrolled patients showed decreased MEP amplitudes and especially a prolongation of the latency. EEG showed general slowing. ECG showed an increased incidence of arrhythmia, unspecific ST depression and left bundle branch block. SSEP show a prolongation and reduction of the N20 that was partially absent. ENG shows a reduced nerve conduction velocity. F-waves have an increased latency and decrease of the persistence. In EMG spontaneous muscle activity was increased and there is a clearing of the interference pattern. In imaging

we detected frequent pathological fractures. MR scans show a loss of brain and myelon volume. The Holter ECG frequently showed bradycardia and arrhythmia. NT-pro-BNP levels elevated were elevated in blood samples.

Discussion: In patients with long bed rest because of their disease such as: Apallic Syndrome, Spinal Cord Injury or for instance Locked-In-Syndrome there are severe secondary complications in all body systems because of the so-called Bedrest Syndrome (BRS). The BRS starts very early in the course of the disease and progresses rapidly and can avoid further rehabilitation from the primary disease. Therefore the BRS should be described in detail in Neuro- and Medical Science to be able to develop strategies for a sufficient prevention of the BRS.

P51 Das Reformpoolprojekt Interdisziplinäres Medikamenten-Reset-Polypharmazieboard des LKH Villach-Evaluierungsbericht

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- 6 Kärntner Ärztekammer
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- P53 Long-term Coma State and the Bedrest Syndrome

Golaszewski S.M.<sup>1</sup>, Florea C.<sup>1</sup>, Wutzl B.<sup>1</sup>, Schwenker K.<sup>1</sup>, Kunz A.<sup>1</sup>, Seidl M.<sup>1</sup>, Nardone R.<sup>1</sup>, Trinka E.<sup>1</sup>, Gerstenbrand F.<sup>2</sup>

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## KOPISCHMERZ/SCHMERZ

P54 Aneurysma der Arteria carotis interna, eine seltene Ursache einer perakuten Okulomotoriusparese einer jungen erwachsenen Frau

Frattner M.<sup>1</sup>, Träger P.<sup>1</sup>, Gruber A.<sup>2</sup>, Urbanits S.<sup>1</sup>, Staykov D.<sup>1</sup>

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- P55 Botulinum toxin A in der Behandlung chronischer Cluster-Kopfschmerzen eine offene Studie

Lampl C., Rudolph M.

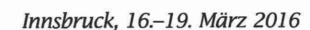
Kopfschmerzzentrum Seilerstätte Linz

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