

**Results:** The FTM tremor scores at 6-months and 1-year showed statistically significant reduction in both conventional and DTI-guided groups. ( $P < 0.05$ ) The DTI-guided group showed statistically significant improvement of tremor control, compared with conventional group in 1 year. ( $P < 0.05$ ) The x, y and z co-ordinates in both groups showed comparable mean values. ( $P > 0.05$ ).

**Conclusions:** DTI-guided DBS improves upper limb tremor control with comparable result of active electrode positioning. DTI may be considered as a future radiological guidance to improve long-term therapeutic effect.

<http://dx.doi.org/10.1016/j.ijvsu.2016.08.043>

#### 0555: PLATELET-RICH-PLASMA INJECTIONS FOR THE TREATMENT OF RESISTANT TROCHANTERIC PAIN

N. Blucher\*, S. Nahas, V. Bonatsos, A. Patel, K. Sarraf, V. Vedi. *Hillingdon Hospital NHS Trust, London, UK.*

**Introduction:** Platelet-Rich-Plasma (PRP) contains and releases a high concentration of activated platelet derived growth factors which is believed to stimulate the body's natural healing response in areas of inflamed tissue. PRP injections are used in many tendinopathies and inflammatory conditions, but there is a lack of clinical studies and trials in the treatment of trochanteric pain. We investigated whether PRP injections improve symptoms of resistant trochanteric pain.

**Methods:** The prospective study included 88 patients with trochanteric bursitis resistant to steroid therapy and physiotherapy. PRP was prepared using a standardised technique. Patient demographics were documented. Pain scores (0-10), EQ-5D Health Domain, Utility and VAS scores, Hip Disability and Osteoarthritis Outcome Scores (HOOS) were recorded pre and post PRP injection.

**Results:** The mean age was 60 (27-83), male to female ratio 1:4 and BMI 26 (20-35). Duration of symptoms ranged from 3-120 months. 20% of patients reported moderate and 78% severe symptoms. Pain scores decreased from 8.1 pre-injection to 4.6 post-injection ( $p < 0.0001$ ). 69% of patients had a successful outcome (Excellent/good/satisfactory). Both EQ-5D Utility and EQ-5D VAS scores improved after the PRP injection ( $p < 0.001$ ) as did HOOS scores ( $p < 0.01$ ).

**Conclusions:** This is the largest clinical study into PRP for treatment of trochanteric pain. We have shown promising results and good outcomes in both subjective and objective scoring. PRP injections should be considered in the management of this condition.

<http://dx.doi.org/10.1016/j.ijvsu.2016.08.044>

#### 0560: THE ASSOCIATION BETWEEN SODIUM FLUCTUATIONS AND MORTALITY IN SURGICAL PATIENTS REQUIRING INTENSIVE CARE

R. Goodson<sup>1,\*</sup>, D. Marshall<sup>1</sup>, J. Saliccioli<sup>1</sup>, M. Pimentel<sup>2</sup>, K. Sun<sup>1</sup>, L. Anthony Celi<sup>3</sup>, J. Shalhoub<sup>4</sup>. <sup>1</sup>Imperial College School of Medicine, Imperial College London, London, UK; <sup>2</sup>Institute of Biomedical Engineering, Department of Engineering Science, University of Oxford, UK; <sup>3</sup>Beth Israel Deaconess Medical Centre, Division of Pulmonary, Critical Care, and Sleep Medicine, Boston, USA; <sup>4</sup>Section of Vascular Surgery, Department of Surgery and Cancer, Imperial College London., UK.

**Aim:** Previous reports have demonstrated a relationship between serum sodium fluctuations and mortality in surgical critically ill patients. Our aim was to assess the association between sodium fluctuations and mortality in a large population of adult surgical patients requiring intensive care.

**Methods:** A retrospective analysis of critically ill surgical patients from the Multi-Parameter Intelligent Monitoring in Intensive Care database. The associations between sodium fluctuations and 28-day mortality were assessed using multivariable logistic regression. Dysnatraemia was defined as a sodium concentration upon ICU admission outside physiologic range (135–145 mmol/L).

**Results:** A total of 8600 subjects were included in the analysis. Fluctuations in serum sodium were associated with 28-day mortality (adjusted

odds ratio (OR) per 1 mmol/L change: 1.10 (95%CI 1.08-1.13)) in dysnatraemia. In subjects who remained normotraemic there was an association between fluctuation in sodium value and 28-day mortality (adjusted OR 1.13, 95%CI 1.10 – 1.16;  $p < 0.001$ ). Subjects with dysnatraemia were more likely to be dead at 28-days (17% vs 7%;  $p < 0.001$ ).

**Conclusions:** Dysnatraemia is common in post-surgical patients admitted to intensive care. Fluctuations of serum sodium, including patients with normal sodium, were associated with an increase in 28-day mortality and that dysnatraemia was associated with 28-day mortality.

<http://dx.doi.org/10.1016/j.ijvsu.2016.08.045>

#### 0655: IMPACT OF PROXIMITY TO PLASTIC AND RECONSTRUCTIVE SERVICES ON THE GEOGRAPHICAL VARIATION IN IMMEDIATE BREAST RECONSTRUCTION PRACTICES IN THE UNITED KINGDOM

N.A.C. Bakri\*, A. Bottle, G. Fontana, D.J. Hadjiminias, S. Wood, D. Leff. *Imperial College Healthcare NHS Trust, London, UK.*

**Aim:** This study aimed to investigate the impact of proximity to the nearest specialist plastic and reconstructive services on the geographic variation in the volume of immediate post-mastectomy breast reconstruction (IBR).

**Methods:** HES data was interrogated to derive 10-year [2004-2013] rates of expander implant-only, autologous latissimus dorsi (LD), LD-implant and autologous (non-LD) IBR by UK NHS Trust. The distance to specialist plastic and reconstructive surgery services was derived from the data available on the BAPRAS website. Bivariate spearman correlation analysis was conducted between 10-year reconstruction volume and distance to plastic reconstructive services (significance  $p < 0.05$ ).

**Results:** An inverse relationship was observed between distance and IBR volume for all procedures. The strength of the inverse relationship was not significant for LD-implant ( $Rho = -.134$ ,  $p = 0.084$ ) moderately significant for implant-only ( $Rho = -.161$ ,  $p < 0.05$ ) but highly significant for autologous LD ( $Rho = -.254$ ,  $p < 0.001$ ) and free-flap reconstructions ( $Rho = -.377$ ,  $p < 0.001$ ).

**Conclusion:** As predicted, the inverse relationship between proximity and IBR volume and the strength of this association especially for autologous and free-flap procedures suggests that distance to plastic and reconstructive service may in explain some of the geographic variation in post-mastectomy breast reconstruction. These implications are that patients with easier proximity to plastic surgeons may receive more complex IBR procedures.

<http://dx.doi.org/10.1016/j.ijvsu.2016.08.046>

#### 0751: RENAL TRANSPLANT FIBROSIS AT ONE MONTH POST TRANSPLANTATION IS A SIGNIFICANT INDICATOR OF GRAFT SURVIVAL AT ONE YEAR POST TRANSPLANTATION

W. Ismail<sup>1,\*</sup>, M. Aswad<sup>2</sup>, S. Hosgood<sup>2</sup>, M. Nicholson<sup>2</sup>. <sup>1</sup>Transplant Unit, Leicester, UK; <sup>2</sup>University of Leicester, UK.

**Aim:** Renal transplant fibrosis process commonly starts early after transplantation due to various causes. Several risk factors have been identified such as young recipient age, presensitization, histo-incompatibility, and acute rejection episodes, especially vascular rejection episodes and rejections that occur late after transplantation

**Methods:** The study has been designed to identify five time points of the renal transplant fibrosis (pre-transplant, 1 month, 3 months, 6 months and 12 months) for 300 live donor renal transplant patients over 12 years period between March 1997- August 2009. All samples have been stained with red Pickering Sirius red stain and fibrosis was quantified using Image Pro. Digital computerised analysis system

Statistical analysis

Univariate linear regression was performed to explore the association between fibrosis at 1 month and graft survival, rejection and severity of rejection