SRLs, (2) treated with Pasi or Peg for active Acro. Patients with concomitant treatments with known action on glucose metabolism were excluded, with the exception of glucocorticoid replacement for central hypoadrenalism. **Results**: 72 pts with active Acro, mean age at study entry 37 ±15 yrs, 47 females (65.3%). 28 (38.9%) pts were treated with Pasi and 44 pts with Peg (61.1%). Peg was monotherapy in 18 pts (40.9%) and in combo with first generation SRLs for 26 pts (59.1%). The number of pts with IGT and DM2 was superimposable between the 2 groups (Pasi and Peg). In Pasi group, 19 pts had Acro control (67.9%); glucose metabolism worsened in 16 pts (57.1%). Worsening of glucose metabolism occurred most frequently in pts with persistently active Acro (62.5%) and in pts with higher BG and HbA1c values at study start. Similarly, HbA1c was higher in pts with active Acro, although HbA1c worsened during Pasi treatment both in euglycemic and IGT at study entry, regardless of Acro control. In Peg group, 31 pts reached Acro control (73%); glucose metabolism worsened in 12 (27.3%) but improved in 5 pts (11.4%). All pts who experienced glucose metabolism improvement had controlled Acro, regardless of the use of a combo with first generation SRL. Among the 13 pts with active Acro after Peg, BG worsened in 5 cases (38.4%). Moreover, we found that pts with worsening BG control had higher HbA1c (p=0.03) and required higher Peg doses (mean ±SD 25 ±10 mg/day; p=0.04). Patients with higher HbA1c had higher IGF-I, both at study entry and at study end and were treated with higher Peg dose (mean 25 mg/day). **Conclusion**: Impaired glucose metabolism was more frequent after Pasireotide treatment and in patients of both Pasireotide and Pegvisomant groups with altered pre-treatment glucose and persistently active disease. Therefore, in such acromegaly patients close monitoring of glucose status is recommended during treatment.

Reproductive Endocrinology

CLINICAL STUDIES IN FEMALE REPRODUCTION I

Association of Inflammatory Markers with Depressive Symptoms Across the Perinatal Period

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Perinatal depression (PND) is a mood disorder affecting 10-15% of women during pregnancy and postpartum. Its aetiology is complex with contribution from both genetic background and psychosocial as well as environmental stressors that determine individual responses shaped by chronic and acute disease burden (1). It is thought that the molecular basis of PND involves dysregulation of the HPA axis associated with neurotransmitter and neuroactive steroids imbalance. Inflammation appears to be a contributing mechanism, with increased levels of cytokines exerting adverse effects on serotonin metabolism, neuroplasticity and HPA hyperactivity (2). With only 50% of women detected through current screening strategies, there is an urgent unmet need for the development of biomarker-based strategies to identify women at risk of PND. In this study we used data and blood samples from the prospective Coventry and Warwickshire PND study; we investigated for inflammatory markers associated with depressive symptoms, assessed using the Edinburgh Postnatal Depression Score (EPDS) questionnaire between 24-29 weeks of gestation and again 6-10 weeks postpartum. A cut-off score of 10 categorize 'high' or 'low' risk for depression. Blood samples collected at 28 weeks of gestation were profiled for either IL-6 and IL-10 levels or a panel of 92 inflammatory markers. Individual inflammatory markers were compared across groups using Welch's ANOVA. Results suggest that IL-10 levels were significantly correlated with EPDS score, exerting a protective effect (r= -.10), with reduced levels in the highest severity category (EPDS ≥ 15). The IL-6/IL-10 ratio was also associated with a raised EPDS score (r=.10, p=.01), as well as delivery complications (r=.09). The highest IL-6/IL-10 ratio is observed in women who had emergency caesarean section. Bayes' theorem analysis suggested that IL-6/IL-10 ratio could be used as a negative screen to rule out low risk pregnancies. From the 92 inflammatory markers, 14 analytes were below the limit of detection for more than 50% of samples and so were excluded from further analysis. Upon comparison of groups determined by antenatal and postnatal EPDS scores, 29 markers displayed a significance value of $P<0.05$. Upon the application of post hoc tests, 8 markers including: STAM-BP, SIRT2, CD40, CASP8 and ADA, all associated with apoptotic processes, remained statistically significant in pregnant women with raised antenatal EPDS scores. This data support an association between inflammatory markers and perinatal depression and adverse pregnancy outcomes. Detailed quantitative analysis of such biomarker signatures at different stages of pregnancy, might lead to early detection of disease and application of targeted treatment. (1) Pariante, C. M. & Lightman, S. L. (2008) Trends Neurosci, 31 (9): 464-468. (2) Raison et al., (2006) Trends Immunol, 27 (1): 24-31.

Bone and Mineral Metabolism

BONE AND MINERAL CASE REPORTS II

The Mystery of Recurrent PTH-Independent Hypercalcemia with Severe Hypophosphatemia

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Background

The differential diagnoses for PTH independent hypercalcemia with hypophosphatemia are broad. Careful