High rate of limb amputation in subjects on renal dialysis: is there a difference between haemodialysis and peritoneal dialysis?

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Background/Aims: High rates of end stage renal failure (ESRF) requiring renal dialysis have been reported in North Queensland. Recent reports have identified dialysis as a risk factor for lower-limb amputations but no study has been done which compares the two modalities of dialysis therapy, namely, haemodialysis (HD) and peritoneal dialysis (PD). The aim of this study is to document differences between HD & PD as a risk factor of non-traumatic limb amputation in North Queensland. Methods: All patients currently attending the Townsville dialysis centre were included in this study. Odds ratio and χ^2 tests were performed to identify variables most strongly associated with amputation. **Results:** We had a total of 219 patients (160 HD, 59 PD) attending the service. We identified higher prevalence of amputation amongst subjects on HD as compared to PD, 15% vs 10.2% (χ^2 analysis showed significant association). All subjects in both groups had lower-limb amputations except one in the HD group, who had an upper-limb amputation. **Conclusion:** We have shown PD might prove to be a safer option compared to HD for subjects with ESRF at risk of limb amputation. Further prospective studies on a larger population are needed to confirm our findings.

Metabolic targeting in a mouse model of schizophrenia

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Background/Aims: Schizophrenia is a severe and disabling disorder affecting 0.7% of the global population (~150,000 Australians). Current treatments are partially or wholly ineffective for many sufferers. Recent studies have raised the possibility that abnormalities of glucose and energy metabolism systemically and in the brain may play a causative role in disease pathophysiology. We hypothesised that intranasal insulin administration may normalise the altered brain energy metabolism. The aim of this study was to examine the effect of intranasal insulin on the behavioural endophenotype in an animal model of schizophrenia induced by chronic administration of ketamine, an antagonist of the NMDA-type glutamate receptors. **Methods:** In Experiment 1, mice were treated with 30 mg/kg ketamine daily for 10 days followed by a wash-out period. The resultant behavioural endophenotype (alterations in psychomotor activity, social behaviour, working and reference memory) was investigated by using a battery of tests. In Experiment 2, mice were subjected to either a saline microinjection intranasally or a temporary restraint procedure without intranasal treatment to establish the possible behavioural effects of this route of administration. In Experiment 3, mice were subjected to chronic intranasal insulin microinjections during the chronic ketamine administration and the wash-out period, followed by behavioural testing as described above. **Results:** Chronic ketamine administration results in psychomotor and social behavioural abnormalities. Our intranasal delivery procedure is safe and does

Pattern of hyperprolactinemia in North Queensland: The Townsville Hospital experience

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Background/Aims: Hyperprolactinaemia is a common endocrine disorder of the hypothalamic-pituitary axis. Its etiology and clinical presentation varies widely, with few studies on this condition reported in Australia, and no available data in North Queensland. The aim of this study is to determine the clinical presentation and management options in patients with hyperprolactinaemia at The Townsville Hospital (TTH). **Methods:** Medical records of patients with diagnosed hyperprolactinaemia attending TTH Endocrinology Clinic between 2003 and 2013 were retrospectively audited using outpatient clinic letters. Data analysis evaluated patient demographic data, presenting symptoms, aetiology, imaging studies and treatment regimens. **Results:** A total of 153 patients was reviewed with a male: female ratio of 1:3. Mean age at diagnosis was 39 + 14.36 years. Menorrhagia was the commonest presenting symptom amongst females (n=44; 38%), followed by galactorrhoea amongst the entire cohort (n=33; 36%). Pituitary adenoma was the most attributed cause of hyperprolactinaemia (n=92; 60%), 26 being male (28%) and 66 (72%) being female. All patients had magnetic resonant imaging of the pituitary, which revealed adenoma in 98% of cases. Medical therapy with dopamine agonist was most prevalent (n=55; 60%) followed by surgery (n=19; 21%), whilst (n=7; 8%) of patients received both surgical and medical therapies. **Conclusion:** Prolactinomas constitute a common presentation of hyperprolactinaemia. This audit reflects the prevalence of this condition at TTH Endocrine clinics. Interestingly, galactorrhea was the commonest clinical presenting symptom amongst both sexes. In line with other reports, hyperprolactinaemia was treated with dopamine agonists as preferred primary therapy in majority of the cohort.

Quality of life in prostate cancer patients at the Townsville Cancer Centre

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Background/Aims: To evaluate the quality of life (QOL) of prostate cancer patients treated with image-guided radiation therapy at the Townsville Cancer Centre. **Methods:** Patient-reported QOL data was collected for 130 prostate cancer patients, along with patient's BMI and prostate motion during treatment delivery. QOL data was collected using the European Organisation for the Research and Treatment of Cancer validated core questionnaire (EORTC QLQ-C30 V3) with the prostate cancer-specific module (QLQ-PR25) at simulation (baseline), every two weeks throughout treatment and at 3 month, 6 month and 12 month follow ups. Descriptive statistics were performed across the 15 functional and symptom domains for each time point. One-way ANOVA was conducted to determine if the change in QOL scores from baseline to 12 month follow up was different across BMI categories. **Results:** The results are presented and contrasted with published data. Our results are similar to previous studies, with higher scores in functional domains. Symptom scores are similar with some noticeable exceptions such as pain and appetite where our scores are lower, probably due to the published data including all stages of prostate cancer, including metastatic and recurrence. There was no statistical significant difference between any of the changes in QOL scores across BMI categories. This was expected, as there was no significant relationship between prostate motion and BMI, which may cause increased side effects and decreased QOL. **Conclusion:** As the department introduces new technologies in the