night without any difficulty. Other associated symptoms were chills, nausea. The patient denied fever, skin changes in the affected area.
On physical examination, the patient was awake, alert and oriented, in moderate distress. Abdomen was soft, non distended, PD catheter was in place with no surrounding skin erythema or tenderness. Genitourinary examination showed swelling of Mons Pubis with overlying erythema on the right side with extension to the right labia majora, exquisitely tender to palpation, no crepitus, no pustules, no palpable abscesses or visible wounds.
Initial labs showed elevated WBC count(36.4K/UL; n<10.5K/UL) and Blood glucose of 361mg/dl(n 70-100mg/dl). CT scan of the abdomen and pelvis showed right anterior pelvic wall subcutaneous infiltration extending inferiorly
into the mons pubis and right labial regions suspicious for cellulitis with no
abscess. Broad spectrum intravenous antibiotics Meropenem, Vancomycin and Fluconazole were started and patient was taken to the operative room for debridement and approximately 25 cm long and 15 cm wide and 8 cm large abscess originating in the right labia extending up into her right groin was found along with necrotic skin, subcutaneous tissue and fat which was sharply excised. Peritoneal dialysis catheter site looked non infected and was left in place and fluid cultures were sent. Patient was switched to Hemodialysis while awaiting PD catheter fluid cultures. Hospital course was complicated by multiple debridements, severe septic shock requiring upto 4 pressors and intubation. She was started on insulin drip for glycemic control as the blood sugars were constantly ranging 300mg/dl(n 70-100mg/dl). HbA1C was 10.9% (n 5.7-6.4%). After 10days she was extubated and off pressors and was stable to be transferred to subacute rehab facility for diligent wound care for the next few weeks before she could go home.
Conclusion:
In patients with uncontrolled diabetes mellitus who present with critical illness like necrotising fasciitis, strict glycemic control with insulin drip yield favourable outcomes.

Bone and Mineral Metabolism

OSTEOPOROSIS: DIAGNOSIS AND CLINICAL ASPECTS

A Quality Improvement Project on Identification and Management of Primary Hyperparathyroidism in Patients Who Present with Osteoporosis to Reduce Morbidity from Bone Disease

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SUN-376

Introduction:Individuals with Primary Hyperparathyroidism (PHPT); a common endocrine disorder are at increased risk of both vertebral and peripheral fractures.Meanwhile Normocalcaemic Primary Hyperparathyroidism (NPHPT),a recognised phenotype of PHPT with a prevalence of 0.4-3.1% in community-based cohorts were anticipated to be milder but most case series documented high rates of osteoporosis, fractures and kidney stones.
Objective:We proactively evaluated patients with a new diagnosis of osteoporosis to (a) identify the frequency of hypercalcaemic and normocalcaemic primary hyperparathyroidism in this cohort of patients and (b) to evaluate the benefit of deploying a proactive process for this evaluation as compared to the current arrangement in our Centre of devolving this to the primary care team.
Method:This cross-sectional study evaluated 194 patients whom were referred for dexa scan for newly diagnosed osteoporosis between January 2018 and December 2018. Patients whom had a secondary causes of osteoporosis, eGFR<60mls/min, liver and malabsorptive conditions and taking medications that would interfere with bone metabolism were excluded from the study. A recommendation letter was sent to them and their General Practitioner to undertake the following investigations: serum calcium, PTH, phosphate, vitamin D, magnesium, liver function test, full blood count, coeliac screen and thyroid function test. Abnormal blood tests including new diagnosis of primary hyperparathyroidism and vitamin D deficiency were identified and treated accordingly. A second letter and telephone calls were made as a reminder if no response were received within 12 weeks of the first letter.
Results:After the first letter, only 83 (34.3%) patients complied with the request for the blood tests. After another 3 months a further 86 patients had the test done while 25(12.9%) did not have the test done despite the reminder. Mean age was 69.72 ± 13.01 and 90.2% were females. The commonest indication for bone density assessment was fragility fracture (46.2%). 69 (35.6%) had spinal, 77 (39.7%) femoral and 9 (4.6%%) wrist osteoporosis. 17(8.8%) patients were detected to have hypercalcaemic and 8(4.73%) patients had normocalcaemic primary hyperparathyroidism. 18(10.7%) patients had vitamin D deficiency and secondary PHPT with half of these patients (9(5.3%)) had severe deficiency (<25 nmol/L).
Conclusions:A significant proportion of patients with osteoporosis without prior history of metabolic bone disease had PHPT but the proportion of these having NPHPT is low unlike what is reported in the literature.Proactive assessment of secondary causes is much more effective and should be routinely deployed

Reproductive Endocrinology

HYPERANDROGENISM

Changes in Microct Bone Density and Reduced Bone Formation in a "Postmenopausal" PCOS Rat Model

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SUN-023

Polycystic ovary syndrome (PCOS) affects women during their entire lifespan. Evidence from the literature suggests an association of PCOS with decreased bone formation markers (osteocalcin and P1NP), although no conclusive data about the incidence of fractures exist. In the present study, we investigated the consequences of androgenization in rats on bone markers and femur microCT and the changes in these parameters after ovariectomy. This study was approved by the local Animal Ethics Committee. Briefly, Wistar rats (n= 38) were divided in 4 groups: 1) "Control OVX" (single dose of corn oil s.c. at day 5 of life and ovariectomy at day 100, n=9); 2) "Control SHAM" (n=9); 3) "Androgenized OVX"(single dose of testosterone propionate 1.25 mg s.c. at day 5 of life and ovariectomy at day 100, n=10); and 4) "Androgenized SHAM" (n=10). Full characterization of estrous cycles and weight was performed during growth, and all animals were euthanized at day 180 during metestrus/diestrous. Evaluation of glucose levels, lipids, estradiol, P1NP levels (a marker of bone formation), and analysis of the femur micro CT Skyscan 1174 (Aartselaar, Belgium) was performed in at least eight animals of each group. Ovariectomy increased the weight of Androgenized OVX rats on day 180: these animals were heavier than Control OVX, Control SHAM, or Androgenized SHAM (ANOVA $p<0.001$). However, metabolic changes were observed in ovary-intact Androgenized SHAM rats who exhibited higher total cholesterol (ANOVA $p<0.001$), increased LDL (ANOVA $p=0.03$), and elevated TyG index, a marker of insulin resistance (ANOVA $p<0.001$) against all other three groups. This group (Androgenized SHAM rats)also exhibited an increase in MicroCt bone density (g/cm-3) (mean + SEM) of 1.117 + 0.06 against the other - Control SHAM 0.8433 + 0.03, Control OVX 0.5527 + 0.001, and Androgenized OVX 0.6284 + 0.02 (ANOVA $p< 0.001$). Although the values of bone density between Control OVX and Androgenized OVX groups were similar, gonadal removal produced a different pattern of bone density reduction between Control OVX and Androgenized OVX (Two-Way ANOVA $p=0.001$). Moreover, we found P1NP levels significantly decreased in the Androgenized OVX group (mean + SEM) of 58.57 + 4.41 ng/ml against 88.02 + 8.49 ng/ml in Control OVX versus (ANOVA $p<0.0001$) indicating lower bone formation. Our results suggest that bone and metabolic features of Androgenized rats are affected by ovariectomy with a negative impact on bone formation.

Tumor Biology

TUMOR BIOLOGY: DIAGNOSTICS, THERAPIES, ENDOCRINE NEOPLASIAS, AND HORMONE DEPENDENT TUMORS

Hipoinsulinemic Hipoglycemia Caused by Solitary Fibrous Tumor IGF-2 Producer: Case Report

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SUN-129

BACKGROUND: Solitary Fibrous Tumor is a mesenchymal neoplasm composed of CD34+ fibroblastic cells that can produce spontaneous hypoglycemia by the overproduction of IGF-2. It closely resembles the hypoglycemia characteristic of functioning islet cell tumors. **CLINICAL CASE** A 77-year-old male was found unconscious and taken to an emergency department with evidence of hypoglycemia and clinical improvement following intravenous glucose administration. He did not have a history of diabetes mellitus and was not taking any glucose lowering medications. He was discharged with nutritional orientation and for control of capillary glycaemia to prevent hypoglycemia. He had 3 episodes of capillary hypoglycemia (50, 45 and 38) at home, that was predominant in the fasting morning and during its occurrence he presented mild sweating, speech difficulty, staring and diplopia, with complete improvement of symptoms after oral glucose replacement. Months earlier, he sought an otolaryngologist for intermittent mild dyspnea; denied cough, hemoptysis, chest pain and unintentional weight loss. He performed chest X-ray with evidence of large right hemithorax mass. Physical examination revealed diminished breath sounds in the right middle and lower lung fields and dullness to percussion. Despite marked hypoglycemia (31 mg/dl), the serum insulin level was less than 0.6 μIU/mL (less than 3 μIU/mL), the C-peptide level was 0.24nmol/L (less than 0,6 nmol/L), had negative ketonemia and a positive response after glucagon administration (glycaemia increased in 50 mg/dl). Anti-insulin antibodies were negative. Serum cortisol secretion and adrenocorticotropic hormone were normal. The serum level of growth hormone (GH) was 0,03 (less than 0,97ng/ml). The serum IGF-2 level was 227 ng/ml (267 - 616 ng/ml), the IGF-I level was 72 ng/ml (37,1 - 172 ng/ml) and the IGF2/ IGF1 was 3,15 (equal or greater than 3). Computed tomographic (CT) scan revealed a large heterogeneous mass with dimensions of 17,4×15×12.2cm. It determines almost total atelectasis of the lower lobe on this side and maintains broad medial contact with the mediastinum, compressing the right atrium and the inferior pulmonary vein on this side. Preoperatively, was administered 40 mg oral prednisone with capillary glucose normalization. The tumor was completely resected and was a grayish-white solid, with dimensions of 17 x 16 x 12 cm. Immunohistochemical stains demonstrated positivity for CD34 and IGF2 expression. Postoperatively, serum glucose and insulin levels returned to normal, and episodes of hypoglycemia are resolved. **CONCLUSION** This case reinforce the importance of investigate IGF-2 tumor production as a cause of hypoinsulinemic hypoglycemia and reports the complete resolution of hypoglycemia after corticoid administration and/or tumor resection.

Pediatric Endocrinology

PEDIATRIC PUBERTY, TRANSGENDER HEALTH, AND GENERAL ENDOCRINE

Anthropometric and Reproductive Outcomes of Patients with Gonadotropin-Independent Precocious Puberty Due to McCune-Albright Syndrome After Treatment with Distinct Therapeutic Agents

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