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Case Report **Published Date:-2023-08-14 12:49:10**

Oculars Pain and Intraocular Hypertension in Hemodialysis Patient with Glaucoma: A Case Report and Review of the Literatures

Resistance hypertension in hemodialysis patient usually is common and sometimes difficult to get achieved target blood pressure control. In patient with intradialytic hypertension, eye pain may occur which can be relate to the severity of the hypertension itself. Hemodialysis has relationship to Intraocular Pressure (IOP). Hemodialysis was be Increased Intraoccular Pressure (IOP) and may be the cause of eye pain during hemodialysis due to ocular dialysis disequilibrium. And this receives inadequate attention by nephrologist as a cause of intradialytic hypertension. In this article, we report a patient with resistant hypertension who complain of right eye pain during and after dialysis. After anterior chamber tapping and the aqueous humor was drained. The symptoms and hypertension improved. Undetected significant increase in IOP during hemodialysis may lead to permanent optic nerve damage and should be recognized as a cause of hypertension. An interesting point of this report was the intraocular hypertension get worsed in hemodialysis patients and could be a cause of resistance hypertension. We suggest regular ophthalmologic evaluation in ESKD (End Stage Kidney Disease) patients should be necessary especially in the patient with poorly controlled hypertension, have previous glaucoma, diabetic retinopathy, eye pain, blurred vision, conjunctivitis and headache.

Review Article **Published Date:-2023-08-08 15:29:15**

Mechanisms and Clinical Research Progress of Rituximab in the Treatment of Adult Minimal Change Disease

Introduction: Minimal change disease (MCD) is a common subtype of primary nephrotic syndrome in adults. The pathogenesis of MCD is still not well understood, but some studies suggest that MCD is a T cell-mediated disease related to podocyte dysfunction. Previous research has also indicated the crucial role of B cells in the pathogenesis of MCD. Rituximab (RTX) is a recombinant chimeric mouse/human antibody targeting CD20 antigen. In recent years, RTX has been increasingly used in adult MCD patients.
Methodology: We searched the PubMed database using the keywords “Minimal change disease”, “Nephrotic syndrome”, and “Rituximab” and obtained a total of 140 articles. We will now provide a literature review based on these 140 articles, according to our research topic.
Discussion: This article provides an overview of the mechanisms and clinical research progress of RTX in the treatment of adult MCD. We have also discussed the current treatment methods for MCD, exploring the potential of using RTX as a first-line therapy for refractory adult MCD.
Conclusion: MCD is a common pathological type of nephrotic syndrome, and the exact mechanisms are still not fully understood. Although RTX as a treatment of adult MCD has shown promising clinical results in patients with refractory adult MCD, the safety and efficacy of RTX still lack high-quality clinical evidence. Further research is needed to explore the pathogenesis of MCD and the RTX treatment for MCD.

Case Report **Published Date:-2023-08-01 15:04:53**

Diagnostic Challenge of Gitelman Syndrome: A Rare but Significant Cause of Electrolyte Imbalance

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Objective: This case study presents a young female patient diagnosed with symptomatic electrolyte disturbances, later confirmed as Gitelman syndrome (GS). It highlights the underlying pathophysiology and emphasizes the importance of its proper management.
Background: GS is a rare genetic disorder affecting kidney electrolyte reabsorption, leading to symptoms like weakness, muscle cramps, fatigue, nausea, and vomiting. Diagnosis involves lab tests and genetic confirmation, with treatment comprising electrolyte supplementation and medications. Ongoing management is vital to prevent complications.
Case presentation: A 23-year-old Caucasian female presented to the ED with sudden weakness in all extremities, thirst, and lightheadedness. Lab results showed hyperglycemia 166 (70-100 mg/dL),
severe hypokalemia 1.1 (3.6-5.1 mmol/L), mild hypercalcemia 11 (8.9-10.4 mg/dL), and severe hypophosphatemia 0.6 (2.3-7.0 mg/dL). Incidentally, she had prior hypokalemia history from a motor accident hospitalization and managed it with KCl for a year but stopped when symptoms improved. She was treated with electrolyte replacement and discharged with oral potassium. Five days later, she returned with severe hypokalemia 1.3, mild hypercalcemia 10.7, and severe hypophosphatemia 0.6. A 24-hour urinary test showed distal convoluted tubulopathy indicative of GS. She was treated with replacement therapy and spironolactone, with instructions for ongoing supplementation and follow-up with a nephrologist.
Discussion: GS is mostly caused by mutations in the SLC12A3 gene, affecting the kidneys' sodium chloride cotransporter function, as confirmed in our patient.
Conclusion: While GS has no cure, appropriate treatment with medication and dietary adjustments can enhance patients' quality of life by maintaining electrolyte balance. Healthcare providers' awareness is crucial for effective care and complication prevention.

Research Article **Published Date:-2023-07-28 17:25:59**

Evaluation of a Weight-Based Mycophenolate Mofetil Dosing Protocol for Kidney Transplant Maintenance Immunosuppression

To evaluate the safety and efficacy of weight-based mycophenolate mofetil (MMF) dosing in adult kidney transplant recipients (KTR), this single-center retrospective study of adult KTR compared biopsy-proven acute rejection (BPAR), infections, hospitalizations, granulocyte colony-stimulating factor (G-CSF) use, and MMF dose changes within one year of transplant pre-and post-implementation of a weight-based MMF dosing protocol. Adult patients who received a kidney transplant at University Health Transplant Institute were reviewed for inclusion. Patients in the weight-based MMF group received 1000 mg twice daily by the first clinic visit if ? 80 kg, 750 mg twice daily if 50-79 kg, and 500 mg twice daily if < 50 kg. Patients in the fixed-dose MMF group received MMF 1000 mg twice daily. A total of 170 KTR (50.0% ? 80 kg, 44.1% 50-79 kg, 5.9% < 50 kg) were included. Baseline characteristics were similar between groups. The majority of patients were middle-aged Hispanic males and received lymphocyte-depleting induction therapy. Incidences of BPAR, infection, and hospitalization were similar between both groups at one-year post-transplant. Weight-based MMF dosing is safe and effective in adult KTR.

Case Presentation **Published Date:-2023-07-20 17:37:20**

Calciphylaxis in Hemodialysis

Calciphylaxis (CP) or uremic calcific arterial disease (CUA) is a rare, potentially fatal calcific vasculopathy characterized by calcific and thrombotic occlusion of the vessels of the subcutaneous and dermis leading to extremely painful necrotic lesions. It mainly affects patients with end-stage kidney disease (ESKD) and under long time dialysis. The only therapeutic option is represented by intravenous sodium thiosulfate. Currently, clear guidelines are lacking. We have had a good therapeutic response with doses of sodium thiosulfate in association with multidisciplinary management of the patient (vulnologist, dermatologist, nephrologist, dietitian, and cardiologist). There is limited literature on the use of DOAC therapy as a successful alternative to warfarin in patients on dialysis with calciphylaxis. The left atrial appendage closure could represent an important alternative to dicumarolics in patients with atrial fibrillation with calciphylaxis. A new perspective for the treatment of this disease is SNF472 a selective inhibitor of vascular calcification.

Short Communication **Published Date:-2023-05-23 12:27:38**

Particularities of COVID-19 infection in chronic hemodialysis patients in Sub-Saharan Africa: experience from Senegal (West Africa)

The severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) appeared in December 2019 in China and has rapidly become a major global health concern. Patients with end-stage renal disease receiving dialysis treatment are very exposed to the SARS-CoV-2 during their frequent visits to healthcare facilities and immune induced by uremia. The aim of our work was to describe the particularity of COVID-19 infection in hemodialysis patients in sub-Saharan Africa and in Ziguinchor, south of Senegal, particularly. To do this, we conducted a monocentric prospective study over a period of 16 months at the Ziguinchor hemodialysis center and compared our results to a study that focuses on the seroprevalence of SARS-CoV-2 in chronic hemodialysis patients. We found a low prevalence of COVID-19 infection while the majority of our patients were in contact with the virus.