P66 A CASE OF PSEUDOHYPOATREMIA DUE TO HYPERCHOLESTEROLAEMIA IN A PATIENT WITH CHOLESTASIS
Hafiz Shafiq Butt*, Lubna Mahmood, Alfonso Herrera. St Luke’s Hospital, Kilkenny, Ireland

Introduction Serum consists of water (93% of serum volume) and non aqueous components, mainly lipids and proteins (7% of serum volume). Sodium is restricted to serum water. In states of hyperlipidaemia or hyperproteinaemia, there is an increased mass of non aqueous components of serum and a concomitant decrease in the proportion of serum composed of water.

The term pseudohyponatraemia refers to the apparently low sodium concentration found in plasma when blood specimens with high concentration of either lipid or protein are analysed by traditional methods.

Pseudohyponatraemia secondary to hypercholesterolaemia is a rare condition. In the diagnostic approach for the patients with hyponatraemia, it should always be differentiated during the initial steps. High concentration of intravascular protein or lipid will dilute the plasma sodium concentration, but do not alter the solute concentrations of intracellular or interstitial fluid compartments. Thus hyponatraemia associated with hyperlipidaemia or hyperproteinaemia can be considered artifactual.

Case report Two years old boy was evaluated for seven weeks history of cholestatic Jaundice. During the workup for cholestasis, a significant drop in serum sodium, 120 mmol/L was noted. Child was asymptomatic apart from Jaundice. Serum Cholesterol level was significantly raised to 52.2 mmol/L (normal 2 - 5). Triglyceride and LDL was unavailable due to icterus, HDL was 0.45 (normal 1–2). A concomitant Sodium level checked on Spot gas analyser was 139 mmol/L (normal).

Other Labs included raised ALT, AST, total bilirubin, alkaline phosphatase and Gamma GT, slightly low total protein and albumin. Viral Hepatitis screen was negative. Autoantibodies negative. Serum Ceruloplasmins, alphafetoproteins, and alpha1 antitrypsin levels were normal. Abdominal Ultrasound showed fatty liver without biliary dilatation. Needle liver biopsy showed paucity of bile ducts. Comprehensive genetic testing did not reveal a cause for his cholestasis. Later on, he also developed xanthomata on his fingers.

A final diagnosis of Cholestasis with bile duct paucity of unknown aetiology was made. LFT remained abnormal six months into the illness and is under followup by Gastroenterologist. Repeat Liver biopsy showed disease progression. He is on Ursodeoxycholic acid, AquaDEK and oral vitamin K.

Conclusion This case shows that hypercholesterolaemia can cause pseudohyponatraemia. It highlights that If there is any suspicion regarding a low serum Sodium in the presence of cholestasis, a serum Sodium should be re tested using blood gas analyser as this method is not subject to interference from hypercholesterolaemia.

P65 GITELMAN SYNDROME: CASE REPORT OF A TODDLER FOLLOWING SALBUTAMOL INHALER
1Vasanthee Sundram*, 2Edwina Daly, 3Mary Waldron. 1Tallaght University Hospital, Dublin, Ireland; 2Our Lady’s Children’s Hospital, Crumlin, Dublin, Ireland

Background Gitelman syndrome (GS), is an inherited autosomal renal disorder characterized by hypokalemic metabolic alkalosis with significant hypomagnesemia and low urinary calcium excretion. It is a rare disorder which usually manifests in early adulthood with muscle weakness, fatigue, muscle cramps, and less commonly by abdominal pain, nausea and vomiting.

Case report We report on a 2 year old boy who presented to the Emergency Department with a two weeks history of coughing. His parents had been administering regular Salbutamol inhaler to control his symptoms.

He had a previous admission three months earlier and was discharged on inhaled Salbutamol to be used as required.

His weight was 11.6 kgs (25–50th percentile), height was 87.5 cm (50th percentile) and BMI 15.2 Kg/m².

He was miserable on examination with mild recession, bilateral expiratory wheeze with crackles in both bases.

Initial laboratory investigations showed a normal full blood count, urea and electrolytes, a normal venous blood gas with a C - reactive protein of 45 mg/L.

Chest x-ray reported patchy infective changes in the left lower lobe with diffuse perihilar inflammatory changes.

The patient was commenced on intravenous Amoxicillin and 2.5 mgs, oral steroids and nebulised Salbutamol to be administered every four hours.

On day 3 of admission, he was noted to be extremely lethargic and was barely responding to his mother’s voice which was not in keeping with the improvement of his respiratory symptoms.

Repeated blood gas analysis showed a significant metabolic alkalosis (pH 7.552) and hypokalemia (2.7 mmols/L) and BMI 15.2 Kg/m².

The nephrology Team were consulted who confirmed the diagnosis of Gitelman syndrome and recommended regular Ibuprofen for three days. He made an uneventful recovery and his potassium and blood gas normalised after two days.

Discussion Gitelman Syndrome is often difficult to diagnose in Paediatrics because it usually presents in adolescence or early adulthood. Sudden cardiac arrest has been reported and it is therefore an extremely important condition to recognise particularly when prescribing potassium lowering agents like Salbutamol and Steroids.

P67 CASE REPORT: MANAGEMENT OF A NEONATE WITH BRACHIAL ARTERY THROMBOSIS
1Samy Allawendy*, 2Cormac Duff, 3Emmanuel Osakwe, 1Dara Gallagher, 2Patricia Eadie, 2Saima Aslam. 1SUH, Sligo, Ireland; 2OLCHC, Dublin, Ireland

Introduction Neonatal spontaneous arterial thromboembolism is a rare phenomenon with a high risk of morbidity and mortality. Currently, there is little information regarding common risk factors, diagnostic strategies, therapeutic interventions, and outcomes of this condition.
WHEN A VIRUS HAS DIFFERENT FACES

Measles is a highly contagious viral illness, characterized by fever, malaise, cough, coryza and conjunctivitis, followed by maculopapular exanthema, which spreads cephalocaudally and centrifugally. Measles, mumps, rubella (MMR) vaccination has led to the interruption of measles virus transmission and gives protection to unvaccinated individuals via herd immunity. The morbilliform exanthema can be found in various conditions, including infectious mononucleosis. It is characterized by fever, pharyngitis, lymphadenopathy and a generalized maculopapular, urticarial and petechial rash occasionally can be present, especially after administration of beta-lactams. CASE REPORT: 17 months old male was admitted in our pediatric department for the appearance, 4 days earlier, of rash and fever (T 38,8°C). The exanthema consisted of an erythematous, maculopapular, blanching rash, which began on the face and progressed to the trunk and extremities involving the palms and soles. In some areas it showed confluent and hemorrhagic features. The physical examination showed the presence of lateral cervical lymphadenopathy, purpulent conjunctivitis and pharyngitis. About 10 days earlier it was administered antibiotic therapy with Amoxicillin for a fever associated with malaise, cough and coryza. The child had no history of allergies and the MMR vaccine was repeatedly delayed and eventually not carried out for multiple episodes of respiratory infections. The laboratory tests showed leukocytosis with a normal differential count, mild elevation of transaminases, elevation of inflammatory markers and LDH; the morphological evaluation of the peripheral smear showed some activated lymphomonocytoid cells. Given the rash characteristics and the strong suspicion of measles, the patient was located in isolation and infectiological tests were performed (TORCH, Monotest, Respiratory Multiplex PCR panel and a serology for measles). They all came back negative except for the anti VCA IgM for EBV infection. The patient was treated with IV fluids and antipyretics. Antibiotic therapy was administered in order to prevent bacterial superinfections. After 72 hours the rash started to darken and then to gradually fade. The patient was dismissed with the diagnosis of maculopapular exanthema in mononucleosis infection. Clinical manifestations of infectious mononucleosis can be similar to those of measles and, especially in unvaccinated patients, can sometimes be confused with it. Maculopapular exanthema can be found in various conditions, such as common viral or bacterial infections, IgA vasculitis, Kawasaki disease or drug eruption. For this reason, it is important to consider mononucleosis in the differential diagnosis of measles, especially in case of hemorrhagic and infiltrated rash, not much described in the literature.

P69 TAKAYASU ARTERITIS PRESENTING IN AN 11-YEAR-OLD BOY

Measles is a highly contagious viral illness, characterized by fever, malaise, cough, coryza and conjunctivitis, followed by maculopapular exanthema, which spreads cephalocaudally and centrifugally. Measles, mumps, rubella (MMR) vaccination has led to the interruption of measles virus transmission and gives protection to unvaccinated individuals via herd immunity. The morbilliform exanthema can be found in various conditions, including infectious mononucleosis. It is characterized by fever, pharyngitis, lymphadenopathy and a generalized maculopapular, urticarial and petechial rash occasionally can be present, especially after administration of beta-lactams. CASE REPORT: 17 months old male was admitted in our pediatric department for the appearance, 4 days earlier, of rash and fever (T 38,8°C). The exanthema consisted of an erythematous, maculopapular, blanching rash, which began on the face and progressed to the trunk and extremities involving the palms and soles. In some areas it showed confluent and hemorrhagic features. The physical examination showed the presence of laterocervical lymphadenopathy, purpulent conjunctivitis and pharyngitis. About 10 days earlier it was administered antibiotic therapy with Amoxicillin for a fever associated with malaise, cough and coryza. The child had no history of allergies and the MMR vaccine was repeatedly delayed and eventually not carried out for multiple episodes of respiratory infections. The laboratory tests showed leukocytosis with a normal differential count, mild elevation of transaminases, elevation of inflammatory markers and LDH; the morphological evaluation of the peripheral smear showed some activated lymphomonocytoid cells. Given the rash characteristics and the strong suspicion of measles, the patient was located in isolation and infectiological tests were performed (TORCH, Monotest, Respiratory Multiplex PCR panel and a serology for measles). They all came back negative except for the anti VCA IgM for EBV infection. The patient was treated with IV fluids and antipyretics. Antibiotic therapy was administered in order to prevent bacterial superinfections. After 72 hours the rash started to darken and then to gradually fade. The patient was dismissed with the diagnosis of maculopapular exanthema in mononucleosis infection. Clinical manifestations of infectious mononucleosis can be similar to those of measles and, especially in unvaccinated patients, can sometimes be confused with it. Maculopapular exanthema can be found in various conditions, such as common viral or bacterial infections, IgA vasculitis, Kawasaki disease or drug eruption. For this reason, it is important to consider mononucleosis in the differential diagnosis of measles, especially in case of hemorrhagic and infiltrated rash, not much described in the literature.

Introduction We present a case of Takayasu arteritis in a Caucasian Irish 11 year old male.

Background Takayasu Arteritis, which usually involves the Aorta and its main branches is an idiopathic granulomatous vasculitis of unknown aetiology with significant morbidity and mortality.

It is rare in children, usually presents in Asian adult females and has a worldwide incidence of 2.6/1000,000.

Case Presentation A previously well Caucasian eleven year old boy, with no past medical history of note, presented with an insidious onset of persistent, intermittent abdominal, flank and back pain, wakening him form sleep and exacerbated by exercise.

Histologically confirmed appendicitis with appendicectomy was made 4 weeks prior to presentation to his local hospital.

Examination was normal, including pulses and 4 limb Blood Pressure measurements. Inflammatory markers on presentation- CRP(90) and ESR(120)- were markedly raised. Full blood count, renal and liver profiles were normal.