14000/mm³ with lymphocytic predominance and numerous atypical lymphocytes in the smear. Her IMN monospot test was positive. Her alanine aminotransferase

(ALT) was 370 IU/L. She was discharged home with diagnosis of glandular fever on symptomatic treatment. A week later, she represented with jaundice, pruritus, nausea and anorexia. Her liver functions showed ALT: 1956 IU/L, aspartate aminotransferase (AST): 1007 IU/L, alkaline phosphatase (ALP): 162 IU/L, total bilirubin: 70 µmol/L, direct bilirubin: 47 µmol/L and albumin:

45 g/L. Her renal functions and clotting was normal.

Her viral markers (hepatitis B virus surface antigen, anti-hepatitis C virus, hepatitis A virus immunoglobulin IgM) were negative. Hepatitis E IgG antibody was positive whereas IgM was negative. Antinuclear, anti-mitochondrial and anti-smooth antibody profile was negative. Ultrasound abdomen showed mild splenomegaly (14cm). Her copper level was 35.8 µmol/L

(N: 11-22 µmol/L) and ceruloplasmin level was 0.52 g/L (0.16-0.45 g/L). EBV viral capsid antigen IgM and IgG were positive and EBV nuclear antigen IgG was negative. Cytomegalovirus IgM was negative and IgG were positive. Her IgA and IgM antibody levels were mildly elevated 3.36 g/L (N: 0.8-2.8 g/L) and 2.8 g/L (N: 0.5-1.9 g/L) respectively. She was treated with ursodeoxycholic acid and fat soluble vitamins. Her liver functions improved but were still deranged 4 weeks later.

Symptomatic hepatitis in IMN is rare, more so in paediatric population compared to elderly. The elevation in aminotransferases levels are usually less than fivefold and hyperbilirubinaemia is seen in up to 5% of patients.

In our patient ALT increased more than 30 times and she became clinically jaundiced and symptomatic. Fulminant hepatitis is very rare. Possible mechanisms are lymphocytic infiltration of hepatocytes, cholestasis and auto-immune hepatitis. Treatment is mainly symptomatic and supportive.

Conclusion Patients with IMN should be observed for jaundice and subsequently monitored for liver function in case of hepatitis. EBV should be considered in patients presenting with clinical jaundice.

47 AN UNLIKELY LIMP...

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Introduction Limp is a common complaint in childhood and could have many causes including traumatic, infectious, tumoral and inflammatory diseases. Beyond lower extremity pathology, limp can also be caused by abnormalities of the abdomen, urinary tract, back and nervous system.

Case-Report 13 years old boy, living in France since his 4 years old, but with a short term stay in Portugal of nine months, was admitted to the hospital with abdominal, hip and thigh pain, with consequent limping gait.

He had these recurring complaints for over 1 year. For the abdominal pain, he had an x-ray that showed marked fecal impaction, with a megacolon, so he was admitted to our ward for deimpaction. Orthopedic surgeons observed the patient and hip examination was normal. Lumbosacral Magnetic Resonance (MRI) was also normal and blood tests showed a normal hemogram, renal function and immunologic study was

negative. After 1 month, he returned with the same symptoms. He had past history of constipation since he was a child, not valued by the family. At the objective examination, there was a palpable fecaloma in the ampulla and palpable stool at digital rectal examination, so he was hospitalized again for deimpaction. Then, he performed double-contrast opaque clister showing a radiological aspect of Hirschsprung's disease. A rheumatologist opinion was requested and a MRI of abdominal, pelvic and hip was performed, that revealed a sigmoid colon with a maximum caliber of 95 mm filled with feces, and consequent anterior bladder deviation and compression of the psoas iliacus muscle. After eating habit modification and regular treatment with laxatives, the symptoms disappeared. Rectal biopsy wasn't performed, because he was lost to follow up.

Discussion This may possibly be a result of an undiagnosed Hirschsprung in a male with recurrent episodes of constipation since infancy, but never followed by the same doctor. The first symptom – pain in the hip and thigh – was due to the compression of the psoas iliacus by the megacolon.

48 OUR ROSTER, OUR CHOICE: IMPACT OF A SHIFT WORK ROSTER'S LAYOUT ON EMOTIONAL WELL-BEING AND BURNOUT LEVELS

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To determine the impact of a change in the layout of a rolling shift work roster according to non-consultant hospital doctors (NCHDs) preferences on emotional well-being and burnout levels in a Paediatric Emergency Department (PED).

Our roster consists of 15 NCHDs. It contains two and a half cycles, spanning ten weeks each over six months.

An online survey was designed to analyse the first cycle of the roster.

Five factors of emotional well-being (happiness, motivation, tiredness, irritability and sleep quality) were highlighted and the survey was circulated to all NCHDs at the end of their shift each week for 10 weeks.

Answer options were framed using a Likert-scale ranging from 1-79. The results were then compiled into a multi-line graph.

The Maslach Burnout Inventory (MBI) was also distributed after the first cycle of to determine the level of burnout for physicians.

After analysing the results the roster was changed whilst taking into account physicians preferences and burnout for NCHDs was determined once again at the end of the next cycle.

The multi-line graph showed that NCHDs ended the week-day nights with mild-moderate negative emotions. After the annual leave break, positive emotions were at their peak where NCHDs felt very happy, energetic and motivated. Over the next few weeks, their emotions remained neutral as they still had enough breaks and shorter shifts. However, from the first twilight shift (Week 5), negative emotions dominated until NCHDs were emotionally drained at the end of the Week 9 shift. After the change in the roster, NCHDs emotions picked up during Weeks 5 – 9 moving towards neutral and slightly positive.

The results of the MBI further confirmed that 85% of physicians were facing moderate-high level burnout which declined after the roster change to 33%.

Burnout is a growing problem among physicians and can possibly lead to devastating consequences therefore requiring immediate interventions 1,2, 3,4, 5, 6, 7, 8. The results revealed that an uneven layout of shifts and breaks within the cycle contributed to high burnout levels which hugely declined after taking into account physicians preferences.

49 HIGH BLOOD PRESSURE AND OBESITY PREVALENCE IN ADOLESCENTS IN BUDAPEST: RESULTS OF A SCREENING PROGRAM

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Obesity is a growing problem worldwide and is likely a major cause of the increased prevalence of high blood pressure in children. The aim of the screening program was to investigate the association of blood pressure levels and obesity, hypercholesterinaemia and increased body fluid in adolescents.

2202 children participated in the screening program. Blood pressure, heart rate, body composition, cholesterol and blood glucose level, bodyweight, height and BMI were assessed.

The participants' range of age was between 14-18 years. The average systolic blood pressure (SBP) was 126.34+12.55 mmHg. Boys had higher SBP than girls (131.87+13.59 mmHg versus 117.49+5.69 mmHg, $p<0,001$). The average diastolic blood pressure (DBP) was 71.86+8.74 mmHg. DBP was also higher in boys than girls (72.61+9.17 mmHg versus 66.69+5.04 mmHg, $p<0,001$). High SBP (>percentile 95%) was detected in 307/1326 cases in girls, and in 403/876 cases in boys. High DBP occurred in 85 girls and in 90 boys. Overweight and obese were 18.994% of the girls and 15.26% of the boys. The percentage of high blood pressure was more frequent among boys and girls who were in the overweight group (58,6% and 18,6%). The pathologically high level of body fat percentage appeared to be 12.98% among girls and 5.9% among boys. In elevated BMI groups the frequency of high body fat was 66% among girls and 81% among boys. The mean cholesterol level was significantly higher ($p<0,001$) in the overweight (4.05mmol/l) and obese group (4.17mmol/l).

Prevalence rates of hypertension and overweight and obesity are high in school children in Budapest, and increased bodyweight is a significant risk factor for hypertension. The results of the study will help to design preventive programmes.

50 INCIDENTAL FINDING OF CONGENITAL DIAPHRAGMATIC HERNIA AND TRISOMY 21 IN AN INFANT PRESENTING WITH BRONCHIOLITIS

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Introduction Trisomy 21 is still the most commonly encountered chromosomal abnormality in the world despite advances

in prenatal diagnostic measures. As screening tests in the antenatal period have limitations(Kater-Kuipers, Bunnik, de Beaufort, & Galjaard, 2018), it is not uncommon to make new diagnoses of trisomy 21 postnatally.

Trisomy 21 is associated with multiple anomalies including congenital heart disease (65%) (Martin, 2018), and gastrointestinal tract anomalies 6%(Stoll, Dott, Alembik, & Roth, 2015). Some studies report infant mortality of about 6% in trisomy 21.(Martin et al., 2018)

Case Summary We report a case of 8-month-old, previously fit and healthy baby presenting to our assessment unit with cough, coryza and increasing breathlessness. On assessment, he was noted to have respiratory distress, oxygen requirement and a respiratory acidosis on blood gas analysis. He was diagnosed with RSV negative Bronchiolitis. He was admitted and commenced on humidified high flow nasal cannula with oxygen requirement up to 40%. Over the next 3 days, he was weaned to nasal canula oxygen and started nasogastric feeds.

After discontinuation of humidified oxygen, he was noted to have facial dysmorphism, specifically slanted palpebral fissures, protruding tongue and single palmar creases. In view of a persistent oxygen requirement and a gurgling sound and crepitations on auscultation disproportionate to his symptoms, a chest x-ray was requested.

It was reported to be suspicious of left diaphragmatic hernia with associated mediastinal displacement to right side.

Further imaging with computed tomography confirmed a left sided Morgagni's diaphragmatic hernia with multiple bowel loops and the left lobe of liver.

The patient was transferred to a tertiary Paediatric unit for surgical correction. He was operated successfully without any complications and discharged home. His genetic testing was later reported as confirmatory of non-dysfunctional trisomy 21.

Discussion Traditionally, trisomy 21 is described as a syndrome with the classic phenotype of slanted palpebral fissure, hypotonia and learning difficulty.

In one study from Saudi Arabia (Al-Salem et al., 2014), out of 53 infants with Morgagni's hernia 15 (28.3%) had down syndrome.

Benachi et al describe the antenatal detection rate in Europe reaching up to 60%(Benachi, Cordier, Cannie, & Jani, 2014) suggesting that up to 40% diaphragmatic hernias could potentially be missed antenatally.

Conclusion Delayed diagnosis of trisomy 21 although not the norm, is not unusual.

One should be proactive in offering genetic tests in suspected trisomy 21 and once diagnosed should be thoroughly screened to diagnose associated anomalies.

51 ROHHAD SYNDROME: CLINICAL CASE AND LITERATURE REVIEW

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Introduction Sleep-related breathing disorders are a potentially lethal conditions characterized by multiple episodes of sleep apnea. Study of these conditions seems to be relevant for pediatrics due to the difficulties of diagnosis and the lack of actual effective treatment strategies. This article describes the