Mirela Šentija Knežević*, Vjekoslav Jeleč, Mirela Šentija Knežević, Giovana Armano, Anita Pavičić Bošnjak, Ivana Rončević. *The City of Zagreb, City Office for Health*

10.1136/archdischild-2021-europaediatrics.44

Breastfeeding is the best way of feeding infants and one of the most effective ways to ensure child health. To achieve the recommended goals for breastfeeding duration and exclusivity, programs should be directed towards breastfeeding promotion and support in the community and a society as a whole. For that purpose, every community should ensure the optimal conditions for mother and child. The goal was to describe the activities of the program Breastfeeding friendly City of Zagreb and to evaluate the use of the services providing breastfeeding support and promotion among parents in the City of Zagreb.

In 2015, the Breastfeeding friendly City of Zagreb, a comprehensive breastfeeding promotion program in the community of Zagreb, the capital of Croatia, had been designed and set in motion, with activities aimed to promote and increase breastfeeding rates. We described the program activities that were implemented in the 5-year period, from 2015 to 2019.

Data on the number of participants attending Courses for pregnant women and their partners, Counselling centers for breastfeeding and Lactation ambulance were presented.

In the period 2015 – 2019 the Program included the following activities that were provided on the primary health care level: antenatal courses for pregnant women and their partners, Breastfeeding Support Groups, Counseling Centers for Breastfeeding and Baby Handling, Counseling Centers for Family Planning, Breastfeeding friendly pediatric offices, and support activities from different NGO's. In addition, „The Breastfeeding Textbook’ was published, the work of the Lactation ambulance in a Clinical hospital and the establishment of the first Human milk bank in Zagreb were supported. All activities were free of charge and were available to everyone. The number of participants attending antenatal courses was 4576 in 2016, 2524 in 2017, 3756 in 2018 and 3839 in 2019. The number of participants in Counseling centers for breastfeeding increased in all three Health Care Centers in the city (e.g. in one Center from 1760 were recorded in 2 years period). The number of women examined in the Lactation ambulance during 2016 – 2018 was 116.

The babies need the best care and support, and local community needs to provide the highest level of health care and all other available services (social, public health, pro-natality population police etc.).

The evaluation of Program showed an overall increase in the use of the services providing breastfeeding support and promotion in the City of Zagreb during the 5-year period. The Program should be further continued and promoted.

Giovana Armano Armano*, Dragica Šakić, Milivoj Jovančević, Zrinka Šakić, Ivana Jurin, Sonja Oković. *Specijalistička pedijatrijska ordinacija dr Armano*

10.1136/archdischild-2021-europaediatrics.45

Cardiovascular diseases are the leading cause of death in Croatia. One of the risk factors for cardiovascular disease

development is abdominal obesity. More recently, the waist-to-height ratio (WHtR) has been used as a more reliable method for determining this type of obesity. According to the research so far, the problem of obesity begins from the age of five. Studies that also included this age group used WHtR values ≥ 0.5 as elevated for all age groups and both genders. However, recent research is limited to children aged 6 to 18 years and defines a limit of WHtR index ≥ 0.459 for girls and ≥ 0.473 for boys.

This study aimed to determine the extent to which risk factors are present in children, whether their parents recognize them, and whether they are aware of the need to develop healthier lifestyle habits to prevent cardiovascular disease in adulthood.

The study was provided through an anonymous questionnaire with 26 questions about sociodemographic characteristics, family and medical history and lifestyle.

The data was statistically analysed (SPSS Statistic Version 23, descriptive statistics, χ^2 test, arithmetic mean, t-test, and ANOVA).

The other part of the study consisted of anthropometric measurements of the weight, height, waists and thighs circumference of every child.

Our study included 1418 children, 730 boys and 688 girls, aged 5 to 15 years, from three paediatric offices of the Zagreb West Health Centre.

According to the WHtR criterion ≥ 0.5 , 7.3% of boys and 8.8% of girls were at an increased health risk for cardiovascular disease. However, according to the latest WHtR criteria, 25.1% of girls and 21.4% of boys were at increased risk. Furthermore, as many as 79.6% of parents did not recognize the risk factors for cardiovascular disease in their children.

The results of our study are similar to the results of other studies and show that most parents are not aware of the problem of obesity and therefore do not see the need for change in their children's life habits.

Accordingly, we conclude that it would be necessary to take additional educational measures both in primary paediatric care and in educational institutions with the aim of timely and effective intervention that would, as expected, contribute to the reduction of morbidity and mortality in adulthood.

R Bhamkar*, S Davison, M Selter, H Sammons, A Arend, D Dalton. *Department of Paediatrics, North Devon District Hospital, Barnstaple, UK*

10.1136/archdischild-2021-europaediatrics.46

Glandular fever or Infectious Mononucleosis (IMN) is caused by Epstein-Bar Virus (EBV). It is characterised by fever, sore throat and lymphadenopathy. Mild elevation of liver enzymes or transaminitis is common in the illness, but is rarely associated with clinical jaundice.

There are very few case reports of EBV with symptomatic hepatitis. We report a case of EBV infection with very high liver enzymes and clinical jaundice.

A 14 year old girl presented with history of fever, sore throat and cervical lymphadenopathy. Her blood investigations showed white cell counts of

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...

Íris Santos Silva*, João Virtuoso, Joana Filipe Ribeiro, Catarina Macedo Francisco, Joana Ferreira, Sónia Santos. *Hospital Sousa Martins, ULS Guarda*

10.1136/archdischild-2021-europaediatrics.47

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

Liqia ur Rehman*, Aliya Hamid, Muhammad Shahid, Turlough Bolger. *Children's Health Ireland at Tallaght, Ireland*

10.1136/archdischild-2021-europaediatrics.48

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.