Materials and methods. This study included 20 patients aged 10-18 years with HTN, who were treated in 2018-2019 in the Department of Cardiology of the Institution of Mother and Child. Left ventricular mass was calculated using the formula by Devereux et al. according to the American Society of Echocardiography guidelines. The left ventricular mass index (LVMI) was derived by dividing LVM in grams by the subject's height in meters raised to the 2.7 power. Left ventricular geometry was classified as normal, concentric remodeling, concentric LVH, or eccentric LVH. Respondents were examined through echocardiography, also the tension values, and BMI were evaluated.

Results. Left ventricular hypertrophy was reported in 7 (35%) children with HTN, and in 2 (10%) children severe LVH was determined (> 51 g/m2, 7). Nearly 4 (20%) children with normal arterial blood pressure had LVH. Left ventricular hypertrophy was more frequently detected in boys (n=5; 38%) compared to girls (n=2; 28, 6%). Distribution by LV geometry revealed concentric remodeling of the LV in 1 (5%) patients; concentric hypertrophy was found in 4 (20%) hypertensive children and eccentric hypertrophy was detected in 2 (10%) patients ($p < 0,05$). The main factors that contribute to development of LVH are: obesity, mean values of systolic blood pressure (131, 4±1, 11 versus 123, 17±1, 22), the level of plasma and urinary catecholamines (85% versus 55%). There is a statistically significant correlation between BMI and LVH ($p< 0,001$). Thus, in this study, children with LVH were more frequently obese (40%) compared with patients who had normal LVMI (5%). The mean value of BMI percentile in children with LVH was 82, 3 ± 4, 0 kg/m2 compared with 66, 7 ± 3, 5 kg/m2 in subjects with normal LVMI ($p<0, 01$).

Conclusions. The study reveals that LVH is the most common target organ effect of HTN in children. Adaptation of the LV myocardium to pressure overload in hypertensive children resulted in the development of more frequent concentric hypertrophy and eccentric hypertrophy. Obesity and high level of plasma and urinary catecholamines is associated with increased risk for LVM in children.

Key words: left ventricular hypertrophy, children, hypertension.

213. INSIGHTFUL IMAGING: CT OR MRI IN ACCURATELY DIAGNOSING ACUTE APPENDICITIS IN CHILDREN

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Introduction. Appendicitis is the most common condition requiring acute abdominal surgery in children. Clinical diagnosis of acute appendicitis (AA) is not always straightforward, and abdominal ultrasound is specific but insufficiently sensitive. Computed tomography (CT) has become favored but its use in children is discouraged due to ionizing radiation exposure. Therefore, magnetic resonance imaging (MRI) is considered an alternative.

Aim of the study. This study aims to compare the accuracy of MRI with that of CT for the diagnosis of AA in pediatric patients.

Materials and methods. For this systematic review, a search of the PubMed database was conducted to select studies that used MRI for diagnosing pediatric patients with suspected appendicitis. Studies that focused on evaluating the accuracy of MRI to diagnose appendicitis were included. Studies with insufficient data to calculate the outcomes were excluded, as well

as those older than ten years. Data for sensitivity and specificity of MRI were extracted from the studies, then, using Barnard's exact test, tested for significance compared to sensitivity and specificity of CT.

Results. Eleven studies met eligibility criteria and were relevant to the question of this systematic review. Sensitivity and specificity were 0.96 (0.95–0.97) and 0.96 (0.94–0.98) for MRI, as compared to 0.94 (0.92-0.97) and 0.95 (0.94-0.97) for CT (with 95% CI).

Conclusions. The authors concluded that the accuracies of MRI and CT for the diagnosis of AA in pediatric patients are very similar, without any statistically significant difference in accuracy. Therefore, MRI constitutes a viable and safer approach to diagnosing AA due to its sensitivity, specificity and lack of exposure to radiation.

Key words: computed tomography, acute appendicitis, magnetic resonance imaging

214. VALUE OF SCREENING TESTING FOR CELIAC DISEASE IN CHILDREN

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Introduction. Celiac disease (CD) is a systemic autoimmune disease triggered by gluten. A higher incidence of CD in rheumatology conditions have been reported. Joint pain and arthritis are also manifestations of celiac disease.

Materials and methods. There have been a few case reports of children with both JIA and celiac disease.

Results. A number of 116 patients (between 0 and 18 years old) have been tested for CD. Including criteria were various, but failure to thrive and digestive symptoms were the first to consider. From 116 patients tested, only 3 patients were found positive. We present the case of a 16 year old patient, known with juvenile arthritis since she was 3 years old, and admitted with abdominal pain, swelling and pain of her left knee and 4 kg weight loss. She was under chronic treatment with Naprosyn and iron preparation, with good effects. Her anti-transglutamise antibody was very high, but after 6 months of gluten-free diet, the patient showed improvement of her general status.

Conclusions. Some of the medications used to treat JIA can cause side effects similar to common symptoms of celiac disease, such as intestinal distress, abdominal pain and lack of growth. There is a proven association between celiac disease and other autoimmune disease, such as juvenile arthritis and diabetes mellitus. Long term studies with more patients are needed to prove more precise interpretation about the link between these 2 conditions.

Key words: Celiac disease, systemic autoimmune disease, juvenile arthritis, diagnosis

215. CLINICO-EPIDEMIOLOGICAL FEATURES OF ADENOID VEGETATION OF CHILDREN

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