Conclusion Results of this study showed, that hypertensive adolescents have poorer oral health than adolescents with normal BP level. This substantiates the necessity of multidisciplinary approach to management of this group of patients with participation of both pediatric physicians and dentists.

P60 CLINICAL CHARACTERISTICS, COMPLICATIONS, AND ANTICOAGULATION IN CHILDREN WITH INFECTIVE ENDOCARDITIS: A SINGLE CENTER EXPERIENCE FROM TURKEY

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Objective In this study, the data of our patients diagnosed with infective endocarditis (IE) between 2010–2018 at the Eskişehir Osmangazi University Faculty of Medicine Hospital, Department of Pediatric Cardiology were retrospectively obtained.

Methods Demographic data, the presence of a predisposing cardiac disease, presentation with complaints, clinical and laboratory findings, blood culture results, treatment plans, evolving complications, and the echocardiographic data of eleven patients were examined. The relevant features of the patients with complications, of those having anticoagulant therapy in addition to antibiotherapy, those who underwent surgery, and those who showed a mortality course were determined.

Results The youngest patient was 7 months old and the oldest was 14 years old (7.5 ± 4.6 years). All of the cases had congenital heart anomalies; four had cyanotic congenital heart disease (CHD), four had a ventricular septal defect (VSD), two had a bicuspid aortic valve (BAV), and one patient had a secundum atrial septal defect (ASD). There were no cases with rheumatic heart disease. Three patients with cyanotic CHD were treated with corrective cardiac surgery. A total of eight patients had embolic findings; five at the time of admission and three at follow-up. Nine patients received antibiotics prior to admission. Echocardiography showed vegetation in nine patients. Anticoagulant treatment was applied to 2 patients with mitral valve and aortic valve vegetation in addition to antibiotic treatment. The most common microorganism in the blood culture was coagulase negative staphylococcus with 5 cases and 2 of them were identified as staph. epidermidis. The second most common microorganism was the viridans group streptococcus with 4 cases. Four patients underwent early surgical treatment, one patient died due to multiple organ failure caused by systemic embolization, and one patient died due to sudden hemodynamic instability in the first week of follow-up.

Conclusion IE is a serious disease with life-threatening complications, where the number of at-risk patients due to CHD is gradually increasing and thus the mortality rate has not decreased despite improved medical and surgical treatment procedures. Early initiation of appropriate antibiotic treatment following early diagnosis is has great importance in preventing mortality. Considering the complications that may be caused by early surgical intervention, anticoagulant therapy, which is combined with antibiotic therapy in appropriate patients, can be tried as a useful option prior to committing to early surgery.

P61 ATRIOVENTRICAL BLOCK IN CHILDREN – SOMETIMES IS A CHALLENGE

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Introduction Atrioventricular (AV) blocks in children may become a challenge in some situations and the aim is to present three different cases admitted in our Department.

Material and method A 12 yo girl was admitted for precardial pain during a respiratory infection. An 8 yo boy was admitted for a syncope in the time he was laying in bed near his father. The third case was a 14 yo girl, known from the age of 2.6 yo with gr. III AV block, implanted with an abdominal pacemaker (PM) with epicardial leads, changed in 2016 with a bicameral PM, programmed DDD with 60b/min; she was admitted for intense fatigue. All of them performed cardiac and arrhythmology examination.

Results The 12 yo girl presented on ECG, grade I AV block, with a PQ interval of 0.30 sec. Holter ECG revealed gr I AV block with different PQ intervals, the maximum length being 0.37 sec. and paroxysmal Gr II Mobitz I Block during night. Being asymptomatic, the decision was just to be followed at 6 mo. The boy with the syncope presented on Holter ECG, Gr II Mobitz I AV block during night, that may be a normal condition in asymptomatic children. Both patients had structurally normal heart and function. The third patient presented tachycardia 122 bpm and weakness. She had cardiac dysynchrony, EF 53%, gr I mitral regurgitation, ASD and reduced GLS. The PM was changed to VVI with 50 bpm. She felt better, but dizzy. Atrial conduction was 120/min and Ventricular spike were at 50/min. Next day PM was upgraded to VVIR, with atrial conduction at 120/min and ventricular activity at 73 b/min. Ecocardiography, EF improved and dysynchrony disappeared. The patient felt much better, being able to be discharged.

Conclusions Gr I AV block, when prolonged PQ interval more than 0.30 sec, needs to be investigated. Asymptomatic paroxysm gr II Mobits I block during sleep, has to be monitored. The new concept of PM Syndrome has to be checked and fixed to be safe for the patient. Simple cases in different situations become a challenge for the pediatric cardiology doctor.

P62 A REVIEW OF NEAR INFRA-RED SPECTROSCOPY

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Near infra-red spectroscopy (NIRS) is an exciting non-invasive, portable, continuous modality used to assess regional tissue oxygen saturations, expressed as a percentage. The use of NIRS in clinical practice is relatively recent, with its role in measuring cerebral oxygenation originally described in the 1970s.

The primary application of NIRS in paediatrics is in monitoring for signs of reduced or differential tissue perfusion, particularly post cardiac surgery.
No routine bedside test measures cardiac index directly; the diagnosis of LCOs is currently made based on a number of clinical parameters including lactate, urine output and mixed venous saturations (SvO2). The efficacy of NIRS has been compared to these parameters in a number of studies.

Averaged cerebral and renal NIRS <65% predict a lactate >3 mmol/L with a sensitivity of 95% and a specificity of 83% (p=0.0001, AUC 0.92).

NIRS can detect the redistribution of blood flow occurring as a physiological response to low cardiac output states, assessed by analysing the difference between somatic (flank) and cerebral NIRS. A NIRS difference between somatic and cerebral NIRS of 10% is significant (p<0.001).

NIRS also provides a robust indicator of renal dysfunction with an increased risk of doubling the creatinine level every hour the renal NIRS is <60% (p<0.001).

Lower cerebral NIRS during the 60 minutes post bypass is associated with a lower psychomotor development index (PDI) of the Bayley Scales and haemosiderin foci on MRI. Further reports have evaluated the predictive value of NIRS on neuro-developmental outcomes at two years of age, reporting that receptive communication may also be affected by the NIRS nadir.

Sceptics refer to studies showing that NIRS values can be ascertained from inanimate objects, including root vegetables. This is not surprising since NIRS evaluates light absorption and even vegetables contain substances that can absorb and/or reflect specific wavelengths.

Near-infrared spectroscopy is an exciting development in medical technology which provides the benefit of continuous, real-time, non-invasive monitoring at the bedside. It provides an adjunct to standard investigative modalities, correlating real-time, non-invasive monitoring at the bedside. It provides a useful indication that a change in regional blood flow has occurred and interventions performed in response to change in NIRS result in reduced morbidity.

**P63 PERIODONTAL HEALTH STATUS IS ASSOCIATED WITH DAILY BLOOD PRESSURE LEVELS IN ADOLESCENTS WITH HYPERTENSION**


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**Aim** To establish significant associations between periodontal health status, daily blood pressure (BP) profile and cardiovascular risk factors in adolescents with elevated BP.

**Materials and methods** A cross-sectional study was conducted. We included 113 adolescents (78 boys) of 10–17 years whose BP level, after repeated office measurements, was at ≥95th percentile for this age group, height and sex, or ≥140/90 mmHg in adolescents over 16 years. All adolescents underwent 24-hour blood pressure monitoring, blood tests (lipid profile, fasting glucose, levels of uric acid, ALT and AST), echocardiography (left ventricular mass index, relative wall thickness), anthropometric measurements with BMI calculation, Tanner staging, dental examination (complex dental plaque index, oral hygiene index). We used univariate and multiple regression analyses to evaluate the associations between periodontium state and cardiovascular risk factors (adjusted to sex, age, Tanner stage, BMI, oral hygiene index).

**Results** Clinical signs of periodontitis were observed in 32.7% of adolescents. At the same time, no severe forms of periodontitis were diagnosed. Multiple regression analysis showed significant associations of complex dental plaque index with 24-hour systolic, mean and pulse BP levels (β=0.42, p=0.0001; β=0.31, p=0.003; β=0.26, p=0.018 respectively), daytime diastolic BP level (β=0.23, p=0.019), and indices of 24-hour systolic BP load (β=0.42, p=0.0001) and daytime diastolic BP load (β=0.25, p=0.006). None of other cardiovascular risk factors showed any significant association with periodontium state during the multiple regression analysis.

**Conclusion** The association between periodontal health status and BP is observed in adolescence, preceding the formation of comorbid associations between periodontitis and lipid and carbohydrate metabolism disorders. Obtained results corroborate examining the periodontal health status and, if necessary, conducting timely preventive activities in adolescents with elevated BP. The results also support evaluation of BP in adolescents with confirmed periodontitis.

**P64 PREVALENCE AND CHARACTERISTICS OF CORONARY ARTERITIS IN KAWASAKI DISEASE**

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Prevalence and characteristics of coronary arteritis in Kawasaki disease

**Background and aims** Kawasaki disease

Kawasaki disease (KD) is an acute, self-limiting systemic vasculitis of unknown aetiology which most commonly occurs in children aged 6 month to 5 years, with a peak incidence at 9–11 month.

Kawasaki disease is the most common cause of acquired coronary vessel abnormalities in children.

The aims of this study were to define the frequency and the clinical characteristics of coronary arteritis in Kawasaki disease in Azerbaijan.

**Method** We included 24 KD patients followed at our hospital from January 2015 to January 2019.

**Results** Among the 24 patients enrolled 18 had coronary arteritis. The median age of KD patients with coronary arteritis was 28 months. Of the 18 patients developed coronary arteritis 4 patients had aneurysmal lesions and 1 patients had arterial thrombotic occlusions.

Treatment with immunoglobulin and aspirin is effective at reducing the risk of cardiac complications from 25% to 5% in the Azerbaijan.

**Conclusion** The KD patients with coronary arteritis had significantly increased levels of inflammatory markers. Of the 18 patients developed coronary arteritis 2 patients was less than 1 year old and they was the most seriously ill and was aneurysmal lesions. In this patients the coronary arteritis left sequelae and did require additional medications.