tumor was removed with Stereotactic Radiosurgery (Gamma Knife system).

Conclusions Unilateral hearing loss in a child is a reason for an extended examination in order to exclude retrocochlear pathology.

408 HYPERKINETIC AND HYPOKINETIC MOVEMENT DISORDERS – IN PEDIATRIC CLINICAL PRACTICE

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To present heterogenous group of motor movement disorders of different etiology and clinical features.

Medical history and clinical exam and assessment, MR neuroimaging, metabolic tests, molecular genetics, lumbar puncture and cerebrospinal fluid exam, antibodies to surface neuronal antigens, EEG monitoring, abdominal ultrasound were performed.

Patients with autosomal dominant torsion dystonia DYT 6 (THAP1 gene mutation) and movement disorders caused by mutations in ATP1A3, SCN8A, CaCN1, PANK2, POLG1 genes and acquired disorders: autoimmune (NMDAR) encephalitis, dyskinetic cerebral palsy, opsoclonus myoclonus ataxia will be presented as well as treatment response.

MD can manifest alone or as part of complex phenotypes of different etiology. Considerable overlap of MD and seizures exists especially in patients with epileptic encephalopathies, ataxias and spasticity in whom clinical diagnosis can be more challenging.

409 HEART OR BRAIN GENETICS?-ICTAL CARDIORESPIRATORY ARREST DURING THE FIRST AFEBRILE EPILEPTIC SEIZURE WITH LEFT TEMPORAL ONSET- LIFE THREATENING EVENT WITH GOOD OUTCOME

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Temporal lobe has important role in the regulation of autonomic function, while the insular cortex is associated with cardiac autonomic functions control. Focal epileptic activity in the temporal lobe may cause cardiac dysfunction.

Patient and Methods A girl at the age of 12 developed cardiorespiratory arrest after she vomited several times during night. She was resuscitated and mechanically ventilated. Her pro-BNP and troponin values were increased, as well as CK, ECG monitoring in ICU was unremarkable, however Holter-ECG showed ST elevation and prolonged QRS complex. Her EEG monitoring showed focal dyscharges from frontotemporal region right. Heart US showed mild dilatation of apical region. Cardioverter defibrillator (ICD) was implanted and carbamazepine treatment was introduced. Her brain MR was normal as well as her heart US after 5 days. She manifested febrile seizures during childhood, attention deficit hyperactivity disorder and joint laxity. Next generation sequencing revealed

heterozygous KCND3 gene mutation :c.916G>A;p.Gly306Ser. KCND3 is reported for Brugada syndrome as well associated with developmental delay, intellectual disability, ataxia, epilepsy and attention deficit hyperactivity disorder.

Conclusion Ictal discharges involving limbic structures may be a cause of both apnoea and ictal asystolia by inhibition of brainstem cardiorespiratory control circuits caused by the mutation in KCND3 gene.

Cardiorespiratory arrest may occur as results of autonomic dysfunction provoked probably by postictal suppression.

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410 INFLAMMATORY LUNG DISEASE IN RETT SYNDROME

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Rett syndrome is a progressive pervasive neurodevelopmental disorder that affects female patients and is the second most common cause of mental retardation in the female gender, with an incidence of 1:10,000 to 1:15,000 live born girls. The classic form of Rett syndrome in 95% of cases is caused by de-novo mutation on the X-chromosome-linked gene encoding the methyl-CpG-binding protein 2. It is characterized by mental retardation, ataxia, epilepsy, characteristic stereotyped movements of the hands and loss of their normal function and breathing disorders. There is no effective cure, but early recognition of the disease and early treatment, primarily antiepileptic and respiratory, can delay the onset of further complications. Breathing disorders, including apnea, hyperventilation, rapid and shallow breathing, breath holding and spontaneous Valsalva maneuvers, are due to ventilatory perfusion inequality and are the result of a number of factors, including oxidative stress and chronic subclinical inflammation. The aim of this case report is to present a girl with Rett syndrome who has been treated with antibiotics on several occasions for radiologically persistent changes in the right upper pulmonary lobe as the changes are understood as pneumonic infiltrate. A girl aged 3 years and 2 months diagnosed with Rett syndrome was hospitalized for additional diagnostic treatment of radiologically verified persistent changes of the upper right pulmonary lobe. The girl was treated with antibiotics at the ages of 15, 17 and 18 months as to have had bacterial pneumonia of the right upper pulmonary lobe. In July 2019, esophagogastroduodenoscopy, bronchoscopy, and computed tomography of the thorax were performed. Computed tomography showing in the region of the upper pulmonary lobe the consolidation of the pulmonary parenchyma with visible air bronchogram and deformation of the bronchi in the branches oriented toward the medial and in the basal segments of the upper paracardial lobe. The described changes are within the framework of Rett syndrome and correspond to the contents filled the alveoli with impaired ventilation and the minimal segment deformation of the bronchi by type of bronchiectasis. Changes of the upper right pulmonary lobe, on computed tomography of the thorax, are found in 50% of children with Rett syndrome and are chronic in nature and do not require antibiotic treatment.

Therefore, caution should be exercised when interpreting radiological recordings so that antibiotic therapy is not unnecessarily prescribed.

411 THE ROLE OF COMBINED MULTICHANNEL INTRALUMINAL IMPEDANCE-PH MONITORING IN INFANTS WITH BRUE (BRIEF, RESOLVED, UNEXPLAINED EVENT)

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The data on the relationship on gastroesophageal reflux (GER) and brief resolved unexplained events (BRUE) in infants are scarce. The aim of this study was to investigate the diagnostic usefulness of combined multichannel intraluminal impedance-pH (MII-pH) monitoring in children with suspected GER-related BRUE.

Infants hospitalized due to BRUE and who were referred for 24-hour MII-pH monitoring from January 2012 to September 2017 were prospectively included in the study. All children underwent 24-hour MII-pH monitoring using a MII-pH ambulatory system (Ohmega, MMS, Enschede, Netherlands). The impedance recordings were analyzed using criteria described in a consensus statement on indications, methodology and interpretation of combined MII-pH monitoring in children.

Twenty-one infants (mean age 4.7 months; range 0.9 to 8.9 months; male/female 10/11) participated in the study. Irregular breathing/apnea associated with GER was found in 10 (52.4%) of infants. Based on RI on pH-metry alone only 7 (33.3%) infants would be diagnosed with GERD. More than 100 GER episodes detected by MII were found in 10 (47.6%) infants.

Nineteen percent of infants had GERD diagnosed based on both pH-metry and MII.

Acid and non-acid reflux seems to have a significant role in the pathogenesis of GER-related BRUE.

412 MEDIASTINAL TERATOMA MIMICKING NONRESOLVING PNEUMONIA

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A teratoma is a tumor of germ cell origin, composed of tissues or organ components from more than one germ cell layer. While mature forms are benign, immature teratomas may be malignant. It is important to emphasize there is always a risk of malignant transformation from the usually benign type. Mediastinal teratomas are uncommon in pediatric age and account for 7-11% of extragonadal teratomas. The specific localization of mediastinal teratoma is anterior or middle mediastinal compartment and rarely posterior mediastinum. Considering their incidence is very rare in children they can very often be misdiagnosed. They are difficult to diagnose in early stage due to very few nonspecific symptoms in the beginning and also can be asymptomatic. Due to complications

while spreading to the adjacent structures, first manifestation can also be acute and dramatic.

We report a case of 14-year-old boy, with severe neurodevelopmental deficit, who was initially suspected to have pleuropneumonia which was radiologically verified as paracardial homogenous consolidation in lower and middle right lung fields as well as an infiltrative attenuation at the base of the left lung. Within less than a month, after antimicrobial therapy, on follow up X-rays infiltrative lesion at the base of left lung completely regressed.

However, homogeneous consolidation on the right along with a newly noticed calcification persisted, therefore lung CT scan was done. CT scan showed large tumor in the right thorax with characteristics of a teratoma. During right sided thoracotomy a large encapsulated tumor was found. Tumor occupied almost all total right hemithorax, it also adhered to surrounding structures, especially pericardium. Tumor was completely excised along with a part of pericardium, pathohistological diagnosis was mature cystic teratoma. Postoperative recovery was complicated by dependency on mechanical ventilation which was resolved by tracheostomy. However, new difficulties with spontaneous ventilation arose due to atelectases; these were treated with 5 bronchoscopies along with bronchoalveolar lavages. Eventually boy was referred to local hospital in good general condition with stable respiratory status. Rest of the postoperative recovery was uneventful.

When facing nonresolving pneumonias clinician should always think of broader differential diagnosis. If pathological findings on radiological imaging persist, a clinician should consider organic causes of diseases and broaden diagnostic investigations so that both true diagnosis and adequate treatment can be reached and initiated in timely fashion. After surgical treatment, a long-term clinical, laboratory and imaging follow up is necessary.

413 PULMONARY ABSCESS AS A COMPLICATION OF PNEUMONIA CAUSED BY S.PNEUMONIA

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In the pre-antibiotic era, a significant number of patients who developed a lung abscess died. The introduction of antibiotics has reduced morbidity and mortality, but a lung abscess remains one of the complications that can occur during the treatment of pneumonia, and its treatment can be a challenge. *S. Pneumoniae* is one of the most common causes, especially in children.

We will present a case of treatment of a lung abscess as part of pneumonia in a three-year-old boy. The disease presented by pneumonia with fever, weakness and cough and elevated inflammatory parameters (CRP, BKS).

Radiologically, an extensive inflammatory infiltrate was found in the upper and middle lobes of the right lung, and an ultrasound examination also found the presence of a pleural effusion. Initial antibiotic therapy (ceftriaxone + azithromycin) was introduced in the external institution. Upon admission to our institution, due to the progression of clinical and radiological findings accompanied by effusion, confirmed by ultrasound examination, treatment continued with antibiotics (ceftriaxone + clindamycin) and corticosteroids. In the