antibacterial component (for the treatment of purulent inflammation), as well as cerumenolytics for cleaning of the external auditory meatus and the prevention of external otitis and conductive hearing loss. Within 6 months of observation a positive tendency was noted.

The child was referred to a geneticist. Mutation was detected in exon 2 of the EDA gene – c.466C> T in a homozygous state and the diagnosis of hypohydrotic ectoderm dysplasia was confirmed. Vaccination against Str.

Pneumoniae and H. influenzae type b was recommended for the prevention of frequent respiratory infections.

Conclusions The treatment of children with hypohydrotic ectoderm dysplasia is complex and includes thorough skin and mucous membrane care, vaccination to prevent respiratory infections and development of complications. For early diagnosis and the correct treatment of patients, the awareness of pediatricians and other specialists of the symptoms of rare hereditary diseases as well as interaction with geneticists are of utmost importance.

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DIAGNOSTIC DILEMMA: VACCINATION SITE REACTION OR INJECTION-RELATED CELLULITIS?

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A previously healthy five-year-old boy presented to the paediatric emergency department with marked swelling, redness and warmth in the left arm (Figure 1), that occurred within 48 hours of receiving the fifth booster dose of diphtheria-tetanus-acellular pertussis-inactivated poliovirus vaccine (DTPa-IPV). He was haemodynamically stable, afebrile and had a good overall appearance. His upper limb function was unaffected.

Given the clinical similarities between this large inflammatory injection site reaction (ISR) and an injection-related bacterial cellulitis, we opted, in this case, for prescribing one-week course of antimicrobial therapy with oral flucloxacillin (50mg/kg every 8h). He showed a marked improvement within 3 days and had a complete resolution of all inflammatory signs in the left arm at one-week follow-up (Figure 2).

DTPa-IPV vaccine can cause large local inflammatory reactions (including pain, itching, swelling or redness around the site of injection), especially after the fifth (preschool) dose. Approximately 20% will experience a minor and common ISR and approximately 2% will experience a severe ISR2, (extensive limb swelling from shoulder to elbow). Particularly large reactions can be confused with bacterial cellulitis, which is extremely uncommon, and antibiotics may be unnecessarily prescribed.

The exact pathogenesis to this reactions is uncertain but they seem to result from a cellular immunity to vaccine antigens. In general they begin a few hours following vaccination, peak at 24 to 48 hours and resolve spontaneously within a week without sequelae. Systemic symptoms, including fever, are infrequent.

Symptomatic management is recommended including analgesia and cool compress.

Antibiotic treatment or the use of anti-inflammatory medication does not reduce the duration and severity of such

reactions. Moving the limb is also recommended because will encourage lymphatic drainage and prevent joint stiffness.

This case serves as a reminder that severe ISR, although infrequent, is well-described after DTPa-IPV containing vaccines. So it is important that parents of children who receive this preschool booster dose are informed of this risk and how to manage it. It is also important to explain that a history of a severe ISR is not a contraindication to future vaccines.

In conclusion, if a child presents with an extensive limb swelling after vaccination, the presumptive diagnosis must be of ISR, unless there are systemic signs (fever and toxicity) or the situation gets worse. Careful consideration is necessary to avoid missing a diagnosis of bacterial cellulitis, which although vanishingly rare, requires an appropriate antibiotic treatment at an early stage.

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OTITIS MEDIA WITH EFFUSION IN EXTREMELY PREMATURE CHILDREN

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Extremely preterm children (born under 28 weeks) have a high risk for hearing loss, one of the reasons for which is otitis media with effusion (OME). The higher prevalence of OME in preterm born children relative to term ones is explained by the morphofunctional immaturity, organs' pathologies, adverse side effects of the treatment received in the NICU. The aim of study was to assess the prevalence of OME, its duration in extremely preterm children and to analyze the risk factors of OME in this population.

109 extremely preterm born children from 6 months to 15 years old were observed prospectively. The mean gestation age was 26.7 ± 1.3 weeks; the mean birth weight was 971 ± 197 g. All children underwent ENT assessment with otomicroscopy and audiological evaluation at least twice during the first year of their life and at least once a year for children older than 12 months. The diagnosis of chronic OME was established with disease duration of more than 8 weeks; the diagnosis of recurrent OME was confirmed in case of the presence at least two recurrences of the disease within 18 months.

64 children (58.7%) were identified with OME, 70.3% of them with bilateral effusion. OME was revealed in 47 children (43.1%) during their first year of life, the disease was more common in the second half-year. Chronic OME was established in 54.7% of all children. In addition to well-known risk factors for OME a high association of OME with perinatal infections and bronchopulmonary dysplasia (BPD) was noted in extremely preterm children. In the first year of life OME was associated with perinatal infections in 63.8% of children, and BPD in 68.1%. Incidence of recurrent OME was significantly higher in children with BPD ($p < 0.05$).

In the study OME was shown to be a common, recurring disorder in extremely preterm children. It can lead to hearing problems causing speech, language, cognitive, and academic delay. One of the causes of OME was infections in the perinatal period. Children with BPD had a higher risk of OME and an increased risk of chronic/recurrent OME. The high incidence of OME in extremely premature children, especially