

perceived in the implementation of successful mitigation strategies. Data was later utilized for descriptive analysis.

The survey was sent to 317 participants, obtaining 71 answers (22,3% response rate). 23% of the respondents were pediatric residents. 84,5% consider that managing pain related to MPP is relevant and must be addressed in every patient. The procedures perceived as most painful (scale from 1 to

10) were arterial punctures (median 9), followed by lumbar punctures and venous punctures (median 7 both). The entire sample declared knowing at least one measure to reduce pain related to MPP, where the most common were: distraction (84,5%) non-nutritious suctioning (78,9%) and topical creams (76%). Still, 15,5% of respondents routinely do not use any measure. 40% declare that during their training they were taught that pain related to MPP should always be managed in a multimodal way, existing effective measures available. 94,4% of respondents believe that there are consequences regarding this type of pain; yet, half of the respondents agree that consequences are minimal and last only for a short period of time. The main barriers against implementation identified are a lack of knowledge of existing available measures (78,9%) and a belief that these require additional time (60,6%).

There is concern among respondents regarding the need for adequate management of this type of pain. In spite of this, a large proportion of participants do not routinely use any measure. This might be explained by an underestimation of the important consequences of this type of pain. The low response rate obtained is one of the main limitations of the study. The findings of this survey could assist in planning better and more effective strategies to support the use of effective measures to reduce pain related to MPP among pediatricians.

#### 40 OSTEOMYELITIS MIMICKING AS NON-ACCIDENTAL INJURY IN EX PREMATURE INFANT

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**Introduction** Non-Accidental injury (NAI) in children is an important cause of major injury, morbidity and mortality in children. Often times posing as diagnostic challenge to differentiate from underlying pathological cause[1-3]. The Trauma Audit Research Network (TARN) report 'Severe injury in Children 2012', identified that children under the age of 2 years who suffered significant trauma, were found to have NAI as the root cause. Out of those, the majority of cases with suspected NAI (76%) were less than 1 year of age[4]

**Case Summary** We report a case of 33 weeks to immigrant family, presenting to Accident and Emergency department at 7 weeks of age with painful movement of left shoulder. Mother gave history of hearing a 'pop' while changing his vest on day of presentation. Due to language barrier, there was delay in seeking medical help.

Due to delay in seeking help and implausible mechanism of injury, a suspicion of non-accidental Injury was raised and a child protection medical examination was performed.

On examination, it was noted that he had painful movements of left shoulder joint with asymmetrical Moro's reflex. There were no other physical injury marks or bruises.

X ray of left shoulder was reported as indicative of possible periosteal elevation of left mid-shaft humerus with a recommendation to consider further imaging.

On second day of admission, patient had low grade pyrexia prompting septic screen. On further imaging, MRI shoulder was performed revealing changes suggestive of osteomyelitis.

His initial inflammatory markers were normal. Diagnosis of osteomyelitis was confirmed based on temperature spikes, MRI finding and clinical improvement in range of movements in left arm after starting on intravenous antibiotics.

**Discussion** Considering a diverse spectrum of presentation for child abuse, it can throw diagnostic challenges to any clinician to differentiate between a pathological cause and Non accidental Injury[3]. We had to consider brachial plexus injury, Cerebral palsy as differentials as patient was afebrile initially. It demonstrates how close; range of differentials could be. In past, there are anecdotal example of Neonatal osteomyelitis presenting as Non accidental injury[5].

Prematurity, socio-economic background are independent risk factors contributing to NAI[6]. In one of the American studies, they described NAI doubles risk of mortality by two-fold [7], so one should be very vigilant in dealing with cases of suspected NAI

**Conclusion** Our case highlights importance of non-judgemental and neutral approach while dealing with cases of suspected NAI.

#### 41 RISK OF OBESITY AND INFANT FEEDING PRACTICES: RESULTS OF PARENTAL SURVEY

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Overweight and obesity in children seem to be quite common problem in many countries. The food dominants and preferences are developing in early childhood. Not rationale feeding of infants and their overweight are risk factors for obesity in school age. The goal of study was to assess the physical development and feeding practice of infants based on self reported parental survey.

The anonymous parental survey for parameters of physical development and feeding practice details was done randomly. The parents of 2nd – 3rd year old children were asked to complete special Google-forms. The individual data, overall tables and diagrams were obtained on-line.

Totally 168 filled questionnaires were processed. The data for body weight in the age of 1 year (z-score) shown that 22,6% children had weight  $> +2\sigma$ ; 1,8% children had weight  $> +3\sigma$ . For body length it was revealed that 8,9% children had parameter  $> +3\sigma$ . The weight/length indicator for 8,9% children was  $> +2\sigma$ ; for 3,0% children  $> +3\sigma$ . The natural feeding since birth was started for 88,1% of children; until 6 months 61,9% of children received breast milk, until 12 months – 54,8%. From those children who received breast milk 35,1% were given also a water during first months. The practice of scheduled feeding followed in 19,1% families. The first solid food in the age of 4-6 months was administered in 91,6% of children; mostly presented by vegetable pure. Part (49,6%) of children received a meat since the age of 7 months. In the age of 9–12 months feeding of infants was quite diverse. But many parents gave to babies food or drinks

which are not recommended before 1 year: fruity juice, sweet drinks, honey, sugar, salt, tea. Many parents (40,5%) switched on TV (video) while feeding. Some of them (14,9%) forced the baby to eat whole portion of food. The child's appetite was considered as satisfactory in 91,7% of families. In 1/3 families the food-pieces chewing skills and self 'finger-food' eating skills were not developed.

The totally 11,9% of children had an overweight and thus risk of obesity in the age of 1 year according to weight/length chart. The possible reasons for overweight were increased part of easily-absorbed carbohydrates in the diet and non-responsive feeding which lead to overconsumption of food by children.

#### 42 NEUROLOGICAL FINDINGS OF VITAMIN B12 DEFICIENCY IN INFANCY

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Vitamin B12 is essential for the development of the central nervous system.

The lack of the vitamin B12 leads to neurological symptoms developing more rapidly in the first year of life. The most common neurologic symptoms observed during infancy are apathy, developmental delay or retardation, involuntary movements, hypotonia, and seizures. In our study, the objective was to determine the neurological symptoms and signs of vitamin B12 deficiency in children and to emphasize the consequences of early diagnosis and treatment.

A retrospective study was performed over the period 2017-2020 at a third level research and training hospital in Turkey. We studied 43 infants aged 1 to 24 months with vitamin B12 deficiency who were hospitalized and treated for other diseases in the paediatrics department of the hospital. The diagnosis of vitamin B12 deficiency was based on haematological values, a low serum vitamin B12 level, a normal level of folic acid, and a high serum homocysteine levels. Complete blood count, serum vitamin B12, folic acid, ferritin, homocysteine, NH<sub>3</sub>, and lactate dehydrogenase levels were measured in all patients, along with serum vitamin B12 levels in their mothers.

The mean age of 27 male and 16 female patients was determined as 6,50±4,03 (1-15 months) months. The most common symptom was afebrile seizures. This was followed by weakness and tremor. Optic atrophy was detected on the ophthalmic examination of one of the patients with convulsions. On neurologic examination, the most common finding was apathy. Hypotonia, involuntary movements and lack of eye contact were also observed.

Retrospectively extra neurologic findings were observed in 25 patients. Most of these had pallor (11), 5 had failure to thrive, 5 had hyperpigmentation of skin, 4 had glossitis, and 1 had jaundice. Anaemia was determined in 37,2% of the cases. Bicytopenia was determined in 9,3% of patients, thrombocytopenia in 4,7%, and pancytopenia was found in 2,3% of patients.

In conclusion, vitamin B12 is important for development of the brain and nutritional deficiencies are common, especially in developing countries.

Most of them occur in exclusively breast-fed infants of deficient mothers.

Even when laboratory parameters are all within normal values, the clinical condition should encourage us to research B12 deficiency. Early recognition of these infants is important because this condition is partially reversible and can aid in preventing the progression of irreversible deficits. More importantly, vitamin B12 supplementation of pregnant women may help prevent neurological findings in infants.

#### 43 EXPERIENCE OF THE USE OF HERBAL MEDICINAL PRODUCT TONSILGON N IN PRESCHOOL CHILDREN WITH WALDEYER'S TONSILLAR RING MEDICAL CONDITION

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**Study objective:** to evaluate efficacy and safety of the use of the herbal medicinal product Tonsilgon N (HMP) in clinical practice in preschool children with Waldeyer's tonsillar ring medical condition.

**Materials and Methods** 628 children (aged 2-5 years, median age - 3.34±2.78, girls - 316 (50.4%), boys - 312 (49.6%)) with chronic conditions of the pharyngeal and palatine tonsils were enrolled in the study. All children were divided into two comparable groups. Children in group I (n = 317) received HMP in drops during 60 days in overall.

Preschoolers in the group II (n=311) did not receive HMP. Clinical efficacy and safety evaluation of the drug was performed before and after the treatment course.

**Results** HMP therapy (group I) eliminated the signs of adenoiditis and led to a decrease in the number of children with second degree tonsil hypertrophy from 75.0-6.84% to 36.1-4.62% (p <0.001). Correspondingly, the number of children with I degree hypertrophy of pharyngeal tonsils increased (p<0.01). Adenoiditis signs and symptoms were almost resolved in 75.8%-5.34% of patients; symptomatic treatment of adenoiditis was not effective (p>0.05) The degree of hypertrophy of pharyngeal and palatine tonsils in preschoolers of the 2nd group did not change and even showed a tendency to increase to 83.6%.

By the end of HMP therapy, children in group I demonstrated a good overall well-being, the swelling of palatine tonsil subsided, adequate nasal breathing was restored, there was no pathological discharge from the pharyngeal tonsils. One year after the end of treatment, nasal breathing was restored in 62.7% of patients who received HMP (p<0.01); snoring stopped in 81.8% of patients (p<0.01). Treatment with HMP was accompanied by an increase in the level of lysozyme in nasal secretions from 56.9-0.88% to 69.8-0.45% (p<0.001) and SIgA from 0.18-0.005 g/L to 0.20-0.003 g/L (p <0.01). In group II, no significant change was observed in the indicators characterising the state of local immunity. Among those who received HMP, 90% showed excellent and good results. Symptomatic treatment in group II did not affect the size of the pharyngeal tonsil and local immunity parameters.

**Conclusions** Study results confirmed efficacy and good tolerance of the HMP.

Evaluation of the frequency of exacerbations of chronic ENT pathology in children who received this HMP during rehabilitation confirmed its effectiveness in boosting of respiratory tract immunity.