

70 PAIN EXPERIENCED DURING VENIPUNCTURE IS HIGHER IN CHILDREN WITH A CHRONIC DISEASE

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Background Venipuncture pain in children results from several factors, which amplify the nociceptive stimulus; among them anticipatory anxiety plays an important role. Children with a chronic disease undergo invasive procedures and venipuncture more frequently than other children.

Goal To evaluate whether a difference exists in pain threshold between children with a chronic disease and children with no previous experience of procedural pain.

Methods Cross-sectional analytical trial. A group of children with a chronic disease (group A) and a group of children with no previous experience of venipuncture (group B) aged 4 to 12 were observed during a standardized venipuncture for blood sample drawing. Pain was self-rated with a 1–10 Wong faces scale or a 1–10 numeric scale. Behavioural distress was measured with the Observational Behaviour Distress Scale (OBDS, 1–33).

Results 230 children were examined, 82 in group A and 148 in group B. With regards to pain, children in group A reported a mean pain score of 8.6 (sd 1.2) while children in group B had a mean score of 3.1 (sd 2.4), Anova $p=0.00001$. With regards to behavioural distress, children in group A had a mean score of 26.7 (sd 4.3) vs. 8.3 in group B (sd 8.4), Anova $p=0.00001$. The groups did not show statistically significant differences in age and sex distribution.

Discussion Children with a chronic disease, who previously underwent numerous venipunctures, experience a more intense pain and distress than their peers at their first experience of venipuncture.

71 RELIABILITY AND VALIDITY OF TURKISH VERSION OF THE PHYSICAL ACTIVITY QUESTIONNAIRE FOR OLDER CHILDREN (PAQ-C)

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Background and aims The aim of this study was to examine the psychometric properties of Turkish version of the Physical Activity Questionnaire for Older Children (PAQ-C) developed by Kowalski et al. The PAQ-C is a validated self-report measure of physical activity widely used to assess physical activity in children (8–14 years of age).

Methods This study was methodological design. The PAQ-C consists of nine questions was rated on a 5-point likert scale. The PAQ-C was translated using a translation/back-translation method. The subjects were 549 Turkish school children. The internal consistency of the PAQ-C was assessed using Cronbach's alpha. Content validity was based on an experts' panel and assessed by using a content validity index.

Results The study was completed with 549 children (49.8% female, 50.2% male). Mean age of the participant was 10.30 years (SD= 0.71, range, 8–11 years). The overall Content validity index (CVI) was 98.75% which signified that the PAQ-C has good content validity. Correlation values of scale items were found between 0.21–0.70 for all items as the result of item total score analysis. Cronbach's alpha coefficient was found as 0.86. The scale had a fairly good test-retest reliability ($r=0.64$, $p<0.001$).

Conclusions Psychometric analyses of the Turkish version of PAQ-C indicate high reliability and good content and construct

validity. The PAQ-C is a useful instrument for assess to physical activity patterns in Turkish children.

72 INCIDENCE AND OUTCOME OF INFLICTED TRAUMATIC BRAIN INJURY AT THE PAEDIATRIC INTENSIVE CARE UNITS IN THE NETHERLANDS

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Background Inflicted traumatic brain injury (iTBI) is recognized as a major cause of death and poor outcome in young children.

Aim To determine the incidence and outcome of children with iTBI at the Paediatric Intensive Care Units (PICUs) in the Netherlands.

Methods The Dutch PICU registry was used to identify all children (0–2 years) who were admitted with traumatic brain injury (TBI) between 1-1-2005 and 31-12-2009. iTBI was defined as (1) proven with a confession or conviction, (2) confirmed by the Child protective services or (3) brain injuries, fractures or retinal hemorrhages incompatible with, or without history of trauma. Cases of iTBI were used to calculate the incidence for each year. Outcome parameters were compared for children with iTBI versus non-iTBI.

Results During the study period 70 of 166 had iTBI (42%), resulting in an overall incidence of 7.6/100.000 live births. The single year incidence varied markedly between 3.3 and 12.4 per 100.000. The children with iTBI were younger than the children with non-iTBI (4.36 versus 7.49 months, $p<0.001$). Children with iTBI stayed significantly longer at the PICU (7.10 versus 3.92 days, $p<0.01$) and in hospital (27.62 versus 7.59 days, $p<0.001$), and were significantly longer on mechanical ventilation (4.23 versus 1.65 days, $p<0.01$). iTBI was associated with a significantly higher mortality rate as compared with non-iTBI (23% vs 2%, $p<0.001$).

Conclusions Of young children admitted to Dutch PICUs with TBI 42% had iTBI. The overall incidence of iTBI was 7.6/100.00. The children with iTBI had a significantly higher mortality rate of almost 25%.

73 HYPOTHERMIA-TREATED INFANTS WITH HYPOXIC-ISCHEMIC ENCEPHALOPATHY (HIE): MRI-FINDINGS CORRELATE WELL WITH NEUROMOTOR-OUTCOME AT 12 MONTHS

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Background Induced hypothermia treatment (HT) for 72 hours reduces the risk of neurological sequelae in asphyxiated full-term infants. Pathological findings on postnatal MRI of the brain have been shown to correlate to the prognosis.

This population-based study investigates the correlation between pathological findings in MRI of the brain after HT and neuromotor outcome at 12 months of age in asphyxiated full-term infants with HIE.

Methods In Stockholm, between January 2006 and December 2009, all infants fulfilling A- and B-criteria for HT were included. MRI of the brain was done within 2 weeks from birth. Neurological assessment was done at 4 and 12 months of age.

Results Of the 70 infants who received HT, both MRI examination and outcome data were available for 60 infants. Patterns of injury on MRI were defined based on the predominant site of injury: Watershed predominant (WS), basal ganglia/thalamus predominant (BG/T), general/global lesions (G) and normal.