Poster abstracts

**PO-0292**  **PAEDIATRIC OUT-OF-HOSPITAL PATIENTS: A POPULATION-BASED STUDY**

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Background and aims The incidence and distribution of paediatric out-of-hospital (OOH) emergencies are not known, and the need for paediatric OOH services has not been studied on a population level. We wanted to study the characteristics and epidemiology of paediatric OOH care. We hypothesised this could ameliorate the design of paediatric emergency medical services (EMS) and the education of their personnel.

Methods We studied all (n = 1869) dispatched emergency calls and the connected EMS patient records for paediatric patients (age 0–16 y) in Helsinki, Finland (population 0.6 M, paediatric population 91 000) during a 12-month period (2012). Patient characteristics, diagnoses, time intervals, medical treatments, procedures, vital measurements and outcome of OOH treatment were available for analysis.

Results Paediatric OOH emergencies were relatively rare (1869 calls, or 4.5% of all emergency calls; yearly incidence 20:1000 in the population). Toddlers were frequently involved, as a third of patients were 0–2 y old. Three causes (falls, dyspnoea, seizures) made up nearly half (37%) of all paediatric emergencies, and the majority (80%) concerned previously healthy children. After evaluation by the EMS, only half of the patients (54%) needed ambulance transportation to hospital. Cardiac arrest or need for advanced life support measures (e.g. intubation), were rarities.

Conclusions Paediatric OOH emergencies are rare and have specific characteristics differing from the adult population. EMS should be designed and their personnel trained for evaluation and management of most frequent situations.

**PO-0293**  **MANAGEMENT OF CEREBRAL ARTERIOVENOUS MALFORMATION WITH HAEMORRHAGE**

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Background and aims We retrospectively analysed cases of cerebral haemorrhage from arteriovenous malformation (AVM), admitted to a PICU of a tertiary hospital to determine management strategies and outcome.

Methods Data were collected retrospectively from a departmental database between 2009 to 2014.

**PO-0294**  **WITHDRAWN**

**PO-0295**  **EARLY NEONATAL HYPOCALCEMIA IN INFANTS BORN TO MOTHERS WITH HIGH PREVALENCE OF HYPOVITAMINOSIS D AND RELATION TO BIRTH SIZE**

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Introduction Neonatal hypocalcemia is a potentially life-threatening condition, with reported prevalence varying by gestational age, maternal and infant comorbidities, and perinatal factors. Objectives Because of the high prevalence of vitamin D deficiency in pregnant women (60%) we measured serum Ca in a random sample of newborns admitted to the neonatal unit in HMC for 6 consecutive months and correlated serum calcium level to gestational age, birth weight, length and head circumference, and mothers’ weight.

Results (Table) The incidence of hypocalcemia in our preterm and full term neonates was significantly higher (3%) compared to those reported in the literature. There was no statistical difference in the incidence of hypocalcemia between term and preterm groups. Serum Ca was correlated significantly with birth wt, length, BMI and head circumference (r = 0.26, 0.25, 0.32, 0.25 respectively, p < 0.05).

Discussion Despite high prevalence of vitamin D deficiency in pregnant women in Qatar (60%) early neonatal hypocalcemia was detected only in 3% of both term and preterm newborns. These findings point out to a well-functioning adaptation mechanism that prevents hypocalcemia in newborns to mothers with hypovitaminosis D.

Conclusion This high incidence of neonatal hypocalcemia necessitates vitamin D supplementation to pregnant women in this population with high prevalence of vitamin D deficiency.