

deepest area of the vascular malformation and would not have been recognized with a biopsy only; an incomplete excision (biopsy) would have upgraded the AS. A post-operative PET-scan was negative for metastases or residual local tumor activity. The patient underwent a secondary wide excision of the soft tissue and fascia underlying the lesion and of the scar from the first operation. There was no residual lesion identified at histopathology. Because of initial complete resection and reassuring radiological findings, no adjuvant therapy

was considered necessary. The patient is completely asymptomatic 20 months after initial presentation, with a normal MRI at 6 postoperative months.

Conclusion: This case suggests that rapidly growing vascular lesions, whose benign nature cannot be formally confirmed by radiology, should undergo complete excision whenever possible.

Free communications fPmh

fPmh-O 1

Health-related quality of life and behavior of triplets at adolescent age

Giancarlo Natalucci^{1,2}, Manuela Iten¹, Julia Hofmann¹, Hans U. Bucher², Beatrice Latal¹, Markus Landolt³

¹Child Development Center, University Children's Hospital Zurich;

²Department of Neonatology, University Hospital Zurich; ³Department of Psychosomatics and Psychiatry, University Hospital Zurich, Zurich, Switzerland

Background: Higher order multiples are known to be at risk for short and long term developmental impairments. Little is known about the long-term quality of life and behavioral characteristics of surviving triplets.

Aims: To assess the health-related quality of life (HrQoL) and behavior of a cohort of triplets in adolescent age compared to gestational age-, birth weight- and sex-matched singletons.

Methods: We examined 54 triplets of 19 sets and 51 gestational age-, birth weight- and sex-matched singleton controls at an age between 13–16 years regarding their self-rated HrQoL. Proxy reports were obtained from parents and teachers. HrQoL was measured by the Kidscreen 52 (KS 52) child and parent form, and behavior was measured by the Achenbach's Child Behavioral Check List parents (CBCL) and teachers (TRF) form.

Results: All subjects were born prematurely (gestational age range 27 0/7–35 6/7 weeks, birth weight range 750–2500 grams). Self-rated HrQoL was similar in triplets and controls. Parent-reported HrQoL was better in triplets than in controls, particularly for the areas of "Moods and emotions", "Autonomy", "Parent relations and home life" and "Peers and social support". Average CBCL composite global scales ('Internalising-', 'Externalising-' and 'Total behavior problem scale') and TRF 'Internalising behavior problem scale' were significantly lower in triplets compared with controls. Compared to community norms both HrQoL and Behaviour measures in triplets were in the normal range. Multivariate analysis showed that socioeconomic status, monozygosity and gestational age influenced outcome stronger than other perinatal factors.

Conclusions: HrQoL and behavior in triplets at adolescent age is satisfactory and in many aspects better than in matched singleton controls. Socioeconomic factors, monozygosity and gestational age play a major role in the prediction of long term outcome of these children.

fPmh-O 2

Lessons learned after 2 full scale disaster exercises in a Swiss pediatric hospital

N. Lutz, C. Yersin, D. Hemme, P.-A. Duc, M. Gehri

Pediatric disaster plan team, Hôpital de l'Enfance, Lausanne

Introduction: Following a disaster, up to 50% of mass casualties are children. The number of disaster increases worldwide, including in Switzerland. Following national order, the mapping of the various risks of disaster in Switzerland will be completed by the end of 2012. Pre-hospital disaster drills and plans are well established and regularly tested. In-hospital disaster plans are much less frequently tested, if only available. Pediatric in-hospital full scale disaster exercises have never been reported in Switzerland. Based on our local constraints, we set up and evaluated a disaster plan during two full scale exercises.

Methods: In a university hospital treating more than 35000 pediatric emergencies per year, two exercises involving mock victims of a disaster aged 9 to 14 years old were successively set up over a period of 3 years. The exercises were planned during the day, without modification of the normal emergency room activities. The hospital staff was informed and trained in advance. Variables such as the alarm timing and transmission, triage set-up and function, special disaster medical records utilization, communication and victims' identification were assessed. Family members participated in the second exercise. An evaluation team observed and record exercises activities, identifying strength and weaknesses.

Results: On two separate occasions, a total of 44 mock patients participated, were triaged, admitted and treated in the hospital according to usual standards of care. Alarm transmission was not appropriate during the first exercise. Triage overload occurred on one occasion. In-hospital communication needed readjustment. Identification and in-hospital tracking of the children remained problematic. Hospital employees showed great enthusiasm and stressed the positive effect of full scale exercises on their knowledge of the hospital disaster plan.

Conclusions: Performing real life disaster exercises in a pediatric hospital was very beneficial. The disaster plan was adapted to local needs and updated accordingly. An alarm transmission protocol was elaborated and tested. Triage set-up was adapted and tested. A hospital identification plan for injured children was created and tested. Full scale hospital exercises evaluating disaster plans revealed several weaknesses in the system. Practice readjustments based on local experience were made. A tested pediatric disaster plan adapted to local constraints could minimize chaos, optimize care and support in the event of a real disaster. Children's identification and family reunification following a disaster remains a challenge.

fPmh-O 3

Are Growing Pains a Parasomnia?

F.A. Aeschlimann, H. Werner, O.G. Jenni, R.K. Saurenmann
University Children's Hospital Zurich

Background: The so-called growing pains (GP) are affecting 4–37% of all children with a peak incidence in preschool age. The underlying cause is still unknown. Although parasomnias (e.g. sleep terrors) share several common features with GP such as age at onset, daytime of appearance, self-limited course and complete absence of symptoms on the following day, an association has not been established between the 2 conditions.

Objective: To analyse the pain characteristics of children with GP and compare the sleep characteristics of the children with and without GP in order to investigate the possibility that GP constitute a parasomnia.

Patients and Methods: The parents of 58 children with a diagnosis of GP according to the Peterson criteria filled a questionnaire about the characteristics of the GP and the sleep characteristics of their children. The study group was then further subdivided in 2 groups according to the time of pain onset: "evening GP" occurring already in the late afternoon and/or at bedtime, and "night GP" occurring only after falling asleep during the first half of the night. 38 children from a study about children's sleep patterns served as control cohort.

Results: Children with GP had more difficulties waking up in the morning ($p < 0.0001$) and re-entering sleep after waking up ($p < 0.0001$), had a lower overall sleep quality ($p = 0.0002$), used more commonly a transitional object (cuddly toy) ($p = 0.002$) and suffered more often from sleep terrors ($p = 0.005$). In a multivariate analysis the factors wake-up difficulties, difficulties with re-entering sleep after waking up, sleep terrors and transitional object remained independently associated with GP. 14 children (24%) qualified for the definition of "night GP" and 16 (28%) had "evening GP". "Night GP" was significantly more common in boys ($p = 0.009$), had fewer pain attacks during one night ($p = 0.04$), were less likely to have their pain attacks following hectic days ($p = 0.04$), had a better overall sleep quality ($p = 0.049$) and more commonly sleep terrors ($p = 0.1$) than children with "evening GP". In the multivariate analysis the factors gender, sleep terrors and occurrence after hectic days remained independently significant.

Conclusion: Children with the so-called GP have a disturbed sleep pattern. The highly significant association of growing pains, especially of the "night GP" variant, with sleep terrors supports the hypothesis of an association between these conditions and warrants further investigations.