The prevalence of FAS in this community ranged from 6 to 9 per 1000 children; and total rate of FASD was 24 to 48 per 1000 children, or 3.6%. Children with a FAS diagnosis were shorter, lighter, and had smaller heads than all others; their BMI centile was lowest when compared to partial FAS cases, and alcohol-related neurodevelopmental disorder (ARND). A significantly higher frequency of smooth philtrum occurs in FAS cases compared to PFAS, ARND, and controls. A narrow vermilion border of the upper lip was significantly different in all FASD children compared to controls. All groups differed significantly by mean total dysmorphology score, and the total score significantly discriminates the FAS and PFAS groups from other groups. Minor dysmorphic features not specifically included in the diagnostic criteria include short inner canthal distance, inter-pupillary distance, clinodactyly and camptodactyly; all differ significantly by diagnosis. Children with FASD are more likely to have a hypoplastic midface, more clinodactyly and camptodactyly, and more frequent epicanthal folds. Performance centiles on all cognitive and behavioral tests were significantly lower for children with FASD compared to controls. The FASD group performed more poorly than controls on verbal IQ, working memory, general and conceptual ability and teacher rating of adaptive behavior. (May PA, Baete A, Russo J, et al. Prevalence and characteristics of fetal alcohol spectrum disorders. **Pediatrics** 2014 Nov;134(5):855-66).

COMMENTARY. The diagnostic criteria of FAS are growth deficiency, craniofacial abnormalities (smooth philtrum, thin upper lip), CNS developmental disorders (microcephaly, agenesis of the corpus callosum, cerebellar hypoplasia), small phalanges and nails, single palmar crease, epilepsy, cognitive and behavioral disorders [1].

References.

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2. Millichap JG. Neurological Syndromes. New York: Springer; 2013. p. 69.

HEADACHE DISORDERS

PRIMARY HEADACHE AND RHEUMATIC DISEASE

Investigators at Istanbul University and Mersin University School of Medicine, Turkey, assessed the occurrence, prevalence and clinical characteristics of primary headache in pediatric patients, aged <16 years, with chronic rheumatic diseases such as juvenile idiopathic arthritis (JIA) and familial Mediterranean fever (FMF). A 53-item headache questionnaire was completed by 601 patients (378 with FMF and 223 with JIA). Each group was divided into two subgroups according to headache occurrence or nonoccurrence: 29.5% with FMF had migraine, 37.6% probable migraine and 32.9% with tension type headache (TTH). In JIA group, 28.2% had migraine, 41.2% probable migraine, and 30.6% with TTH. Headaches were not aggravated by exacerbation periods of the systemic disease. Family history of hypertension and diabetes and of headache was reported higher in patients with headache, especially migraineurs. (Uluduz D, Tavsanli ME, Uygunoglu U, et al. Primary headaches in pediatric patients with chronic rheumatic disease. **Brain Dev** 2014 Nov;36(10):884-91).

COMMENTARY. Theories of mechanism of increased prevalence of headache, especially migraine, in children with chronic rheumatic disease, as proposed by the investigators, include rheumatic disease associated emotional stress, vascular headache triggered by immune mediated disease, and as part of the underlying rheumatic disease process. Headache should be a part of the history in patients with chronic rheumatic disease and, as shown in the following study, in their parents.

A previous study by investigators at Duke University, Durham, NC, examined the relationships of parental and family history on the pain experience of children with chronic rheumatic disease [1]. More than 90% of parents of children seen in a pediatric rheumatology clinic described a personal pain history, including migraine headache. Parents who had treatment for their own pain had children with higher pain ratings. Gathering information from parents about their own pain histories, health care providers can identify children at risk for developing maladaptive pain coping strategies and higher levels of disease-related pain and disability. Parents should be included in interventions aimed at reducing children's pain and improving children's abilities to cope with pain.

References.

1. Schanberg LE, Anthony KK, Gil KM, Lefebvre JC, Kredich DW, Macharoni LM. Family pain history predicts child health status in children with chronic rheumatic disease. Pediatrics 2001 Sep;108(3):E47.

DEMYELINATING DISORDERS

MULTIPLE SCLEROSIS AND SEIZURE PREVALENCE

Investigators from Oslo University Hospital and other centers in Norway studied changes in the prevalence and incidence of multiple sclerosis (MS) in Vestfold County, Norway, in the period 1983-2003. Point prevalence was calculated for Jan 2003. The average annual incidence rates were calculated in 5-year periods from 1983 to 2002. Compared to published prevalence from 1963 and incidence from 1953, the prevalence of MS increased from 61.6/100,000 in 1963 to 166.8/100,000 in 2003. In the period 1983-2002, the annual incidence fluctuated between 4.2 and 7.3/100,000/year (mean 4.5). In 2003, the portion of MS patients with epileptic seizures was 7.4%, compared to 2.9% in 1963. During the 40 years follow-up of this population, the incidence of MS was stable, while the prevalence of MS and the share of MS patients with epileptic seizures increased. Compared to the general population, the risk of having active epilepsy was increased fourfold. (Lund C, Nakken KO, Edland A, Celius EG. Multiple sclerosis and seizures: incidence and prevalence over 40 years. **Acta Neurologica Scandinavica** 2014 Dec;130(6):368-73).

COMMENTARY. An increased survival in MS patients is considered a reason for the present increased prevalence of epilepsy in association with MS. A MS lesion may act as a focus of an epileptic seizure [1].

References.

1. Allen AN, et al. BMC Neurol. 2013 Dec 4;13:189.