CORRESPONDENCE

Fetal Alcohol Spectrum Disorders and Their Persisting Sequelae in Adult Life

by Prof. Dr. med. Hans-Ludwig Spohr,
Prof. Dr. med. Dipl. Psych. Dr. phil. Hans-Christoph Steinhausen
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Maturation of the Auditory Pathway

Neonates are screened for auditory function. Congenital hypacusis is found in 1/1000 neonates; the fetal alcohol spectrum disorders (FASD) are more common. The oto-acoustic emissions measured in neonates only reflect the contractility of the outer hair cells in the cochlea; a positive test result does not provide any information on central defects. Further, in children with FASD, acoustic evoked potentials should be measured and the maturation of the auditory pathway should be controlled, as was stipulated by the Mayo Clinic as early as in 1981 (1). The central transmission time from the potential of the acoustic (vestibulocochlear or auditory) nerve to the thalamus serves as the benchmark. In normal babies aged 18 months, the time is about 4 milliseconds, and the maturation time is notably prolonged in FASD. There are children whose auditory pathways never completely mature. The result is deficient maturation; the development may stall at age 1 year. If in FASD the auditory pathway has not matured when a child has reached the age of 4 years, no improvements are to be expected. In a serious case in our practice, a neglected infant died and was buried by his father at a motorway car park; neither of the two siblings spoke a word and their diet consisted of non-alcoholic malt beer. If the auditory pathway has not matured and further central disorders are present, parents willing to adopt are merely informed about the problems that are already present; one cannot help feeling that that state and the youth welfare offices are trying to pass the risk to adoptive families without further regard of the potentially serious sequelae.

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Drs. med. Volker Baschek, med. Wilhelm Steinert, med. Lydia Hildebrandt
Ebertstr. 20, 45879 Gelsenkirchen, Germany

Monocausal Discussion

The article mentions the fetal alcohol spectrum disorders as the most common cause of learning deficiencies and points out the associated long term sequelae. In my opinion, the problems are discussed in too monocausal a fashion, and the multiple differential diagnoses of mental-cognitive developmental disorders are not elucidated sufficiently. These include primary brain system disruptions,

sequelae of extremely premature birth, and psychosocial influences. Unilateral explanations can lead to unjustified blaming and false stigmatisation. To diagnose and care for these children, for the past 20 years Germany has had 130 socialpediatric centers nationwide, about 200 000 children and adolescents with developmental abnormalities and impairments of all kinds are being treated in these centres every year. Interdisciplinary multi-purpose diagnostic tests that consider the etiology, initiation of treatment, and long term care are being given in these centers by pediatricians in collaboration with complementary therapists, psychologists, and social consultants.

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Prof. Dr. med. Hans Christian Straßburg
Universitäts-Kinderklinik
Josef Schneiderstr. 2, 97080 Würzburg, Germany
strassburg@mail.uni-würzburg.de

In Reply:

The correspondence from Baschek, Steinert, and Hildebrandt adds important aspects to our review. Their point—that in addition to neonatal screening in babies with FASD, acoustically evoked potentials should be measured and the maturation of the auditory pathway in suspicious findings should be controlled until at least the 18th month of life—is extremely important because where the suspected diagnosis is FASD, it is necessary to consider such control examinations from ENT specialists.

Church and Kaltenbach (1) point out that four typical hearing defects are associated with FASD: the developmental delay in auditory maturation that is mentioned in the correspondence, sensorineural hearing loss, intermittent hearing loss as a result of bouts of recurrent otitis, and central hearing loss.

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Prof. Dr. med. Hans-Ludwig Spohr
Neuropädiatrie- und Epilepsie-Ambulanz
Klinik für Kinder- und Jugendmedizin
DRK Kliniken Berlin, Westend
Spandauer Damm 130, 14050 Berlin, Germany
h.spohr@drk-kliniken-westend.de

Conflict of interest statement

The authors of all letters and of the reply declare that no conflict of interest exists according to the guidelines of the International Committee of Medical Journal Editors.