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VIIth ESPID (EUROPEAN SOCIETY OF THE STUDY AND PREVENTION OF INFANT DEATH) CONGRESS

LATIN AMERICAN SATELLITE SYMPOSIUM ON SUDDEN INFANT DEATH



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DEL LACTANT DE LA SOCIETAT CATALANA DE PEDIATRIA



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unexpected death were admitted to the Emergency Department of the Free University of Brussels. In all patients, the anamnestic data and the clinical examination were collected. An autopsy was performed within the 24 hours after death. In cases, where the autopsy was not allowed by the parents, a blood, urine, stool, and cerebrospinal fluid culture were performed, as well as a toxicological screening. During the last 5 years, information on sleep practice of the infant was asked and obtained from the family.

Results. The data of 95 cases of sudden unexpected death were analyzed, 67 boys and 28 girls. The mean age was 4.5 months and a high incidence was seen during the winter season. An autopsy was performed in 72 patients (no autopsy in 23 patients). A death-cause was found in 37/72 children: 8 infants with severe viral infections; 7 with severe bronchopneumonia; 5 with cardiac malformations; 5 with massive pulmonary aspiration of gastric content; 4 with an intestinal invagination; 3 with septicemia; 2 with a cerebral hemorrhage; 1 with a bacterial meningitis; 1 with a metabolic disorder; and 1 with a hernia diaphragmatic. The autopsy was considered completely normal in 22 children, and in the remaining 13 children, the autopsy revealed intrathoracic petechiae. Out of the 23 children without autopsy, a death-cause was suspected in 7 children (slipping under the blankets in 2 children; 3 children with a positive blood culture; 1 child with a diazepam intoxication; and 1 with Rotavirus infection). During the last 5 years, 31 cases of SIDS were recorded in our hospital, the anamnestic data revealed that 24 of the 31 were sleeping in prone position.

Conclusion. The postmortem investigation revealed a death-cause in about 50% of the cases, and therefore, autopsy should be recommended as routine procedure.

Also, this study confirmed the well known, high incidence of SIDS in prone sleeping position children and therefore, it should be avoided.

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POSTMORTEM FINDINGS OF THE ECAS STUDY IN THE NETHERLANDS

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In the setting of the ECAS (European Concerted Action on SIDS) study there were 67 necropsies out of 106 reported cases of sudden unexpected death (SUD) of babies and toddlers between 7 days and 2 years of age in the Netherlands, in a period of 18 months. No attempt was made primarily to eliminate non SIDS cases. We felt that a division between various groups within SUD would be made on more solid grounds after all results of the postmortem had been collected. Necropsies were performed by local pathologists throughout the country. A first diagnosis was made by them often after consultation with one of us (J.H.).

A simple classification yielded the following 3 groups: Non SIDS, 30; Borderline SIDS, 15; SIDS, 22. A detailed report on the risk factors and preventive recommendations is given in the abstract of M.P. '1 Hoir e.a. A second «blind» reading of slides and interpretation of relevant data on each case such as clinical background, microbiological results and gross necropsy findings is at the moment in progress by two of us (T.B. and K.H.L.). In third instance an attempt will be made to reach a consensus on a final registrable diagnosis by the whole panel. Results will be presented. In addition we will try to construct a «pathology profile» of each case, as to growth and development, intercurrent disease, pre- and postnatal damage, duration of stress of final lethal illness, integrity of the various organ systems, iatrogenic damage, etc. The pathology profile, because of its nature in describing the whole person and its history

is better suited than the one final terminal diagnosis for correlation with psycho-social and epidemiological data, and using these correlations to suggest preventive measures. This pathology profile and its application to the case material from the Netherlands will be presented.

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DEFECTIVE «RESORPTIVE DEGENERATION» OF THE HEART'S CONDUCTION SYSTEM AND SUDDEN INFANT DEATH SYNDROME

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Aim of study. The purpose of the study is to determine the relationship between the defective «resorptive degeneration» of the heart's conduction system and sudden infant death syndrome (SIDS).

Patients and method. We analyzed 53 hearts from autopsied cases of SIDS. The hearts were from 33 males and 20 females, ranging in age from 3 weeks to 12 months. All patients had no apparent reason other than SIDS to explain the cause of death. We analyzed 10 normal hearts as controls from six males and four females of the same age. None of them died for heart disease. Histological observations were focused on the heart's conduction system. At autopsy, the heart was removed in the usual way, but with the utmost care for preservation of the heart's conduction system. The hearts were fixed in 10% formalin solution. Histological examination of the cardiac conduction system was performed on serial sections. Bichromic Hematoxylin-Eosin and trichromic Heidenhain-Azan was routinely employed.

Results. We observed areas of defective «resorptive degeneration» in 10 of the 53 cases of SIDS.

Conclusions. The results show that in some cases of SIDS there are areas of defective «resorptive degeneration». Our findings may indicate that a defective «resorptive degeneration», associated with particular conditions and/or neurovegetative stimuli, can cause potentially malignant arrhythmias. We believe that the evaluation of areas of defective «resorptive degenerations» in SIDS could be the morphological substrate of SIDS. These data suggest the need for an accurate investigation of the cardiac conduction system in SIDS cases.

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VALUE OF POSTMORTEM MICROBIOLOGY

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Postmortem microbiology is said to be unreliable because of postmortem growths and contamination. As we perform it for many years and found it very useful, we present here the data obtained in 1995 and 1996 in a series of autopsies.

Patients. 20 consecutive natural sudden deaths in infants under 1 year of age (1.5 to 8.5 months (m); mean age = 4.4. m) for whom the complete postmortem protocol was applied. The postmortem intervals varied from 4 hours (h) to 3 days (mean = 34 h). 18 controls for the microbiological protocol: 1 accident (7 m) and 1 homicide (2 m); 4 sudden deaths in children over 1 year of age (13 m to 4.5 years; mean age = 32.2 m); 12 deaths consecutive to prematurity or perinatal pathology (aged