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JORNADA COMEMORATIVA AOS 25 ANOS DO HOSPITAL INFANTIL JOANA DE GUSMÃO

Tema: Atenção Integral à Criança e ao Adolescente com Ênfase na Educação e na Humanização

ANAIS - PROGRAMA OFICIAL

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Promoção e Realização:

THE RECENT NATIONAL ITALIAN LAW FOR THE REDUCTION OF THE SUDDEN INFANT DEATH SYNDROME (SIDS) AND SUDDEN INTRAUTERINE UNEXPECTED DEATH (SIUD): OBJECTIVES AND GUIDELINES FOR THE ANATOMO-Clinical RESEARCH

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The Chamber of Deputies of the Italian Republic has recently approved the national law n. 4248, "Post-mortem Investigation on the SIDS and of Unexplained Late Fetal Death". The objectives of this law include the reduction of the mortality for SIDS and SIUD through the anatomo-clinical research, widespread informative and preventive campaigns and programs of continuous formation for medical personnel. It is well known that the SIUD has a six-fold greater incidence than that of SIDS. Advances in maternal and fetal care have not changed the prevalence of stillbirth in the last 20 years. Recent studies on the pathophysiology of SIDS and SIUD have focused on the autonomic nervous system as well as on the cardiac conduction system. The important results uphold a new approach to SIDS by analogical link with late fetal stillbirth. Our investigations performed of 52 late fetal unexpected death, 12 neonatal unexpected death and 110 SIDS have revealed frequent anomalies, mostly congenital, of the brainstem cardiorespiratory centers. Among the developmental abnormalities, the finding of hypoplasia and/or defective neuronal maturation of the arcuate nucleus, a chemoreceptor component of the ventral medullary surface, was detected in over 50% of both SIUD and SIDS cases, with different degrees of extension and severity up to a complete agenesis. Developmental abnormalities of the arcuate nucleus can be associated with analogous finding in the other brainstem nuclei regulating the cardio-respiratory, upper digestive and arousal activities, i.e. hypoglossus, dorsal vagus motor, tractus solitari and ambiguous nuclei, trigeminal tractus and nucleus, ventrolateral reticular formation, locus coeruleus, parabrachial/Keilker-Fuse complex. In addition, these can be associated with abnormalities of the cerebellar granular layer and in fetuses with pulmonary hypoplasia. The study of the cardiac conduction system showed frequent congenital alterations. Accessory atrio-ventricular pathways of Kent, James and especially Mahaim type were observed in 30% of cases. These accessory pathways may underline potentially lethal arrhythmias. The chronic prenatal exposure to cigarette smoke represent the major risk factor of perinatal and infant mortality. Cigarette smoke was significantly associated with brainstem and cardiac conduction abnormalities, as well as early atherosclerotic lesions already detectable in term fetuses.

The law n. 4248 is composed of the following articles:

ARTICLE 1
1. The victims of SIDS and fetuses that died without any apparent cause after the 28th week of gestation must be submitted to autopsy.
2. The information regarding the pregnancy, the fetal development and the delivery, and in case of SIDS, the familial and environmental situation, must be accurately recorded and verified, for the diagnostic and research purpose, by the obstetrician gynecologist, the neonatologist, the pediatrician and by the pathologist involved in the case and according to international protocols.

ARTICLE 2
1. The health authorities will identify the university institutes or the hospital departments of pathology which will perform the function of referral centers according to Article 1 and 2. The autopsy is performed according to the protocol devised by the Institute of Pathology of the University of Milan (*).

ARTICLE 3
The findings of the investigations are collected in the data bank available at the Institute of Pathology of the University of Milan and forwarded to the adequate Authority that will send the information to the doctors in charge and make them available, in an anonymous way, to the close relatives of the victims.

ARTICLE 4
1. The health authorities will promote inherent prevention and sensitization campaigns in order to guarantee correct information on the problem of SIDS and fetuses death without an apparent cause.
2. The Health Ministry, in collaboration with the interested scientific societies and with the parents’ associations, prepares guidelines for the prevention of SIDS.
3. For the realization of the programs of continuous information in medicine, provides that each obstetrician, gynecologist, pediatrician, neonatologist, pathologist, histologist, general physician, and nursing staff obtain educational credits in the subject of SIDS.

4. In order to guarantee better assistance to the families struck by SIDS or sudden intrauterine death without apparent cause, the health authorities can prepare plans of psychological support to the families, facilitating contacts with the associations for families that have suffered similar experiences.

(*) The guidelines will be presented.