

SOCIEDADE BRASILEIRA DE PEDIATRIA



**CONGRESSO NACIONAL
DE PEDIATRIA - REGIÃO SUL**

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:



RGE, ALTE y SMSIL. Estos eventos suelen ocurrir en una franja de edad común, en el primer semestre de la vida, sobre todo entre los 2 y los 4 meses. Se intrincan diversos factores que apoyan este relacionamiento: inmadurez de los mecanismos de regulación, sensibilidad de los receptores laringeos, relación del evento con la alimentación, con el sueño, con la posición durante el sueño, se invocan incluso factores genéticos. Se postula que el efecto del RGE sobre la vía aérea superior, produce, una apnea. No solo por efecto de la acidez del contenido gástrico, sino por el reflujo como tal. Analizamos los resultados de 316 polisomnografías (PSG) realizadas en lactantes que presentaron Alte en los últimos diez años, con edades entre 0 y 6 meses. Se identificaron en 185 casos eventos obstructivos. En 79 de ellos se realizó phmetria simultanea. En esta población no se pudo identificar un comportamiento diferente entre niños nacido pretérmino y niños nacidos a término. No logramos individualizar las fichas de todos los pacientes por lo cual no fue posible mostrar una relación entre eventos obstructivos y RGE en este grupo. Buscando establecer algún vínculo entre los eventos obstructivos y los episodios de reflujo analizamos 24 estudios PSG realizadas durante el año 2004 en lactantes entre 1 y 5 meses que habían presentado un episodio ALTE. En un total de 24 estudios con PSG, se observo en 14 de ellos, eventos obstructivos y en 10 de estos, los valores de ph eran inferiores a 4, durante los episodios de obstrucción, en 3 de ellos si bien existieron alteraciones obstructivas, las lecturas simultaneas sobre el phmetro siempre se mantuvieron por encima de 5. Se discute el valor de la Phmetria en este momento, preconizándose el estudio con impedanciometria intraluminal. Por otra parte mostramos los resultados del seguimiento realizado en la policlínica de niños que presentaron ALTE. Se realizó el control evolutivo de 39 lactantes. En este grupo se diagnostico RGE como causa de Alte en 19 casos. En 13 de ellos por phmetria y en 6 casos por estudio radiológico. En nuestro medio el seguimiento prospectivo de los niños con ALTE, se ve limitado dado que la mayoría proceden de medios socioeconómicos en general desfavorecidos, y la concurrencia a los controles les es difícil por problemas económicos, además de los cambios de domicilio, perdida de línea telefónica etc. **Bibliografía:** • Little GA, Ballard RA, Brooks JG, et al. National Institute of Health Consensus Development. Course on infantile apnoea and home monitoring, sep 1986. *Pediatrics* 1987;79: 292-9. • Kahn A, Rebuffat E, Sottiaux M, Blum D, Yasik EA. Sleep apneas and acid esophageal reflux in control infants and in infants with an apparent life-threatening event. *Biol Neonate*. 1990;57 (3-4):144-9. • Beckerman RC, Brouillette R, Hunt CE. Respiratory control disorders in infants and children. Cap.12 1992 Baltimore Press. • MC.McGovern, MBH Smith. Causes of apparent life threatening events in infants:a systematic review. *Arch Dis Child* 2004.89 (1043-1048) • Guilleminault C, Ariagno R, Korobkin R, Nagel L, Baldwin R, Coons S, Owen M Mixed and obstructive sleep apnea and near miss for sudden infant death syndrome: comparison of near miss and normal control infants by age. 1979 *Pediatrics* 64: 882-891. • Guilleminault C, Pelayo R, Leger D, Philip P Apparent life-threatening events, facial dysmorphia and sleep-disordered breathing. 2000 *Eur J Pediatr* 159: 444-449. • Page M, Jeffery H. The role of gastro-oesophageal reflux in the aetiology of SIDS *Early Hum Dev*. 2000 Aug;59 (2):127-49. Review. • Christian F. Poets. Gastroesophageal Reflux. A Critical Review of Its Role In Preterm Infants. *Pediatrics* 2004.113(2)28-32. • Wenzl T, Schenke S, Peschgens T, Silny J, Heinmann G, Skopnik H. Association Of Apnea And Nonacid Gastroesophageal Reflux In Infants: Investigations With The Intraluminal Impedance Technique. *Pediatr Pulmonol*, 2001, 31:144-149. • Kato I, Franco P, Groswasser J, Kelmanson I, Togari H, and Khan A. 2000 Frequency of obstructive and mixed sleep apneas in 1023 infants. 2000 *Sleep*, Vol 23 No 4.

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 chemoreceptorial 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 solitarius and ambiguus nuclei, trigeminal tractus and nucleus, ventrolateral reticular formation, locus coeruleus, parabrachial/Kölliker-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 25th 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.