

ABSTRACTS BOOK

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ACQUIRED INFLAMMATORY HEART DISEASE

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INNOMINATE ARTERY COMPRESSION OF THE TRACHEA: INTRAOPERATIVE ELECTROENCEPHALOGRAPHIC MONITORING IN DIVISION AND REIMPLANTATION TECHNIQUE

1 Francesco Seddio, 1 F.P. Anacchino, 2 G. Fasolini, 1 V. Pak, 1 G. Di Dedda, 3 L. Mirabile, 1 M. Quattrocchi, 1 M. Ciuffreda, 1 A. Borghi, 1 G. Crupi, 1 P. Ferrazzi

1 Centro per la Diagnosi e il Trattamento delle Cardiopatie Congenite, -Ospedali Riuniti di Bergamo- Italy
2 Unità Operativa di Radiologia, -Ospedali Riuniti di Bergamo- Italy
3 Unità Operativa di Anestesia e Rianimazione -Ospedale Meyer di Firenze- Italy

OBJECTIVES: Innominate artery compression of the trachea (IACT) has been treated by artery suspension (arterioplexy) or by division and reimplantation. We used this technique and to avoid cerebrovascular accidents we used intraoperative electroencephalographic monitoring (EEG) before and during innominate artery clamping.

METHODS: Since 2003 5 patients was referred to our hospital for treatment of recurrent pneumonia, apnoeic episodes and progressive severe airways obstruction. All patient were evaluated with bronchoscopy, angiography and echocardiography. Bronchoscopy detected pulsatile compression of trachea by an anomalous origin of innominate artery. Because of symptoms severity all patients were scheduled for innominate artery division and reimplantation. Their age at the time of operation ranged from 4 to 48 months, with a median age of 17 months. Weight at operation was $9,1 \pm 4,3$ Kg. A continuous EEG monitoring started at beginning of surgery for a baseline study. After innominate artery mobilization a 3 minutes clamping tested cerebral ischemia. In one patient EEG showed persistent reduced signal frequency and this patient underwent arterioplexy. The remaining 4 patients underwent division and reimplantation technique with a mean clamping time of $18,9 \pm 1,7$ minutes.

RESULTS: In hospital mortality and morbidity was 0%. Intraoperative and postoperative bronchoscopy confirmed resolution of tracheal compression. Symptoms gradually resolved in all patients and at follow-up no pts experienced any episodes of airway obstruction. Three pts underwent CT-scan 3D to assess innominate artery patency.

CONCLUSIONS: Intraoperative EEG monitoring in division and reimplantation technique avoids stroke's risk. Innominate artery stenosis may be studied by CT scan 3D.

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REVIEW OF 609 RHEUMATIC FEVER PATIENTS REGARDING REVISED AND UPDATED JONES CRITERIA

Rana Olgunturk, Berna Canter, F. Sedef Tunaoglu, Serdar Kula

Department Of Pediatric Cardiology, Gazi University School Of Medicine, Ankara, Turkey

Objective:

To investigate the findings and prognosis of rheumatic fever (RF) patients seen in the past 20 years and to compare the last two decades.

Material-Method:

The medical records of all RF patients admitted to Gazi University department of pediatric cardiology during 1982-2002 were reviewed. The decade from 1.1.1982 to 31.12.1991 was designated as 1980s and the following decade as the 1990s. Results: Among the 609 RF cases, there was no difference between the two decades regarding mean age, male:female ratio, most of the minor manifestations and findings of the preceding streptococcal infection. As the rate of carditis declined in 1990s, rates of arthritis and chorea increased. Severity of carditis and admissions with reactivation decreased during 1990s. The two decades did not differ regarding mean age, gender ratio, pericarditis rate, number and type of valvular involvement and sequel of carditis cases. Severity of carditis and number of valvular involvement influenced the first-year prognosis. Almost one-third of the arthritis cases had monoarthritis in the both decades. Atypical cases with small-joint involvement were detected number of which increased during the 1990s.

Conclusion:

The two decades do not seem to differ regarding most of the manifestations of RF. More emphasis should be given to atypical cases such as small-joint involvement.

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PERINATAL AND INFANT EARLY ATHEROSCLEROTIC CORONARY LESIONS RELATED TO MATERNAL SMOKING

1 Luigi Matturri, 1 Giulia Ottaviani, 1 Anna Maria Lavezzi, 2 Daniel R. Grana, 2 José Milei

1 Institute of Pathology, 'Lino Rossi Research Center', University of Milan, Italy
2 Instituto de Investigaciones Cardiológicas (ININCA), University of Buenos Aires - CONICET, Buenos Aires, Argentina

Background: The observations reported in the literature regarding the fetal origin of coronary artery lesions are rare and controversial.

Aim: To identify the features of early atherosclerotic coronary artery lesions in late fetal stillborns and infants and the possible atherogenic role of maternal cigarette smoking.

Methods: We examined by autopsy 22 unexpected fetal deaths and 36 sudden infant death syndrome victims. In 28/58 of the cases mothers were smokers. Serially cut sections of major epicardial coronary arteries were stained with hematoxylin-eosin, Azan, Alcian blue and acetic orceine, and were immunotyped for CD68, CD34, -SM-Actin, PCNA, c-fos, and apoptosis.

Results: In 10/12 of fetuses and in 15/16 of infants of smoking mothers, multifocal coronary lesions of varying entity were detected. Only in 5 cases (2/10 fetus and 3/20 infants) arterial lesions were observed in infants with non-smoker mothers ($p < 0.0001$). Alterations ranged from focal areas with mild myointimal thickening in prenatal life to early soft parietal plaques in infants. Smooth muscle cells (SMCs) showed loss of polarity, infiltrating subendothelium, mostly with rupture of the internal elastic lamina. No neoangiogenesis was observed. These early lesions, presented c-fos gene activation in the SMCs of the tunica media, and in some of these, positivity of the SMCs for apoptosis was also observed; suggesting that c-fos gene over-expression could might promote a proliferative process, as testified by the PCNA positivity.

Conclusion: Early intimal alterations of the coronary arteries are already detectable in the prenatal and infancy period and are significantly associated with maternal cigarette smoking.

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KAWASAKI DISEASE IN INFANTS: CLINICAL AND CARDIOVASCULAR COMPROMISE

G. Guzmán, C. Morales, P. Alvarez, G. Henriquez, M. Alburquerque

Department of Cardiology and Cardiovascular Surgery, Roberto Del Río And Luis Calvo Mackenna Hospitals, Santiago, Chile

Purpose of the study:

To evaluate the incidence, clinical and laboratory features of Kawasaki disease (KD) in infants and analyze its presentation in incomplete forms.

Method of investigation:

retrospective collaborative analysis of 57 KD patients between January 1997 and March 2005. Evaluation of demographic, clinical presentation, laboratory and echocardiographic variables. Fisher test for median comparison and chi-square for risk group analysis (infants and more than one year of age). Statistic significance $p < 0,05$.

Results:

22 KD patients less than one year (39%), 14 (64%) with incomplete presentation ($p < 0,05$). The most frequent clinical signs were: generalized rash (82%), oral involvement (64%) and conjunctival injection (64%). 10(46%) had cardiac compromise, 6 of which were incomplete KD ($p < 0,05$). Cardiac complications included: coronary aneurism (6 patients), pericardial effusion (5 patients), coronary ectasy (4 patients), coronary thrombus formation in 2 patients. There was only one death in this group. Comparing less and greater than one year of age groups there was a statistical significant difference for incomplete presentation form in infants. There were no significant differences in cardiovascular complications incidence, ecographic or laboratory presentation.

Conclusions:

39% of KD patients in this group were infants. In this age group incomplete form of presentation is more frequent and is associated with more severe forms of cardiovascular complications.