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## RESORPTIVE DEGENERATION OF THE HEART'S CONDUCTION SYSTEM AND SUDDEN INFANT DEATH SYNDROME: PRELIMINARY RESULTS

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The cardiac conduction system undergo remarkable morphological transformation beginning about 1 or 2 weeks after birth. Such molding, called "resorptive degeneration" consists of degeneration, cell death and replacing in an orderly programmed way. However, such process, if exaggerated, could provoke blocking disruption of the pathway itself, and if defective could leave in place some accessory communication between the atrio-ventricular pathway and the adjacent ordinary myocardium. The purpose of the study is to determine the presence of resorptive degeneration in the heart's conduction system in cases of sudden infant death syndrome (SIDS) and of explained death (ED). We analyzed 66 hearts from autopsied cases of SIDS (44 males and 22 females) and 12 hearts from cases of age-matched ED (6 males and 6 females). Histological observations were focused on the heart's conduction system. Histological examination of the cardiac conduction system has been carried out on serial sections, with the technique devised by one of the present authors (L. Rossi). We observed areas of resorptive degeneration in 96.96% of the SIDS cases and in 76.92% of the ED cases. Resorptive degeneration, if defective or exaggerated and/or if associated with particular neurovegetative stimuli, could have caused potentially malignant arrhythmias responsible for sudden and unexpected death. These data suggest the opportunity for a more accurate cardiac conduction system than the one currently performed in SIDS cases.