

## Serotonin Trasporter Tracks Similarities Between Sids And Idiopathic Alte

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Recent advances in molecular genetics have opened new perspectives in the definition of pathogenic mechanisms of SIDS and ALTE. Among the variety of genes investigated during the past decade, several studies have identified polymorphisms in the serotonin transporter (5HTT) (SLC6A4 encoding 5HTT) as a predisposing factor in infant death. The project will represent a significant step to add knowledge on the involvement of the serotonin polymorphisms of two different 5HTT regions (5-HTTLPR, hydroxytryptamine transporter-linked polymorphic region, and Stin2, intron 2 VNTR), the promoter region of MAOA (monoamine oxidase A), and DAT in an Italian SIDS population, ALTE patients, IALTE (idiopathic ALTE) and controls. **METHODS:** The study population consisted of 76 ALTE infants, distinguished in IALTE (idiopathic) by clinical, diagnostic and therapeutic data (12 channels polysomnography E-Series Compumedics). Genotypes and allelic frequencies of DAT, MAOA and 5HTT were determined in ALTE and IALTE infants compared with data obtained from 150 healthy controls. **RESULTS:** No association was found between DAT polymorphism and ALTE/IALTE groups either at genotype ( $p=0.25$ ;  $p=0.112$ ) or allelic ( $p=0.94$ ;  $p=0.88$ ) level, MAOA genotypes and allele data comparison between ALTE and control group was not significant, on the opposite data on IALTE was statistically significant for the genotypes ( $P=0.09$ ) and a tendency for allele ( $p=0.036$ ). Analysis of 5HTT polymorphisms in IALTE remarked the role of L/L genotype ( $P<0.00001$ ) and L allele ( $P<0.00001$ ) as previously demonstrated in SIDS. **CONCLUSION:** Considering strict correspondence between 5HTT and MAOA genotypic and allelic data in IALTE and SIDS, we hypothesize that the two syndromes are different expression of a common etiopathogenesis.

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