



PAEDIATRIC DERMATOLOGY

CUTANEOUS MARKERS OF AUTISM SPECTRUM DISORDERS- A STUDY FROM INDIA

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INTRODUCTION: Autism spectrum disorders(ASD) are considered as neurodevelopmental disorders. There is paucity of data on cutaneous lesions associated with ASD from India.

OBJECTIVES: To identify the congenital cutaneous markers and acquired cutaneous lesions associated with autism.

METHODS AND MATERIALS: A case-control study was conducted from February 2018 to July 2018. 132 children with ASD from 18 months to 16 years of age were recruited. Control group included age and sex matched children without autism. Clinical diagnosis of autism was made based on DSM-V criteria. The cutaneous lesions were classified as congenital and acquired. Café-au-lait macules(CALMs) with irregular margins and ragged borders were defined as atypical as per published criteria. The association with variables was calculated using chi-square and Fisher's exact tests.

RESULTS: Among 132 cases and controls, male: female ratio was 4.4:1 and mean age was 4.7 years. The association between CALMs (45.5% in study group Vs 25.7% in controls, $p=0.0013$), and hyperpigmented type of pigmentary mosaicism (9.8% in study group Vs 3% in controls $p=0.042$) and ASD was significant. Number of CALMs ranged from 1-4 in study group(average-1.5) vs 1-3 in control group(average-1.3) excluding neurofibromatosis1. Atypical CALMs (14.3% Vs 8.3%) and nevus depigmentosus (10.6% Vs 7.6%) were also more common in children with ASD. 2 children within study group and 1 in control group had tuberous sclerosis. 4 cases of neurofibromatosis1 were seen only in control group. Acquired





dermatoses was more common among controls (78%) than in children with ASD (31%) ($p=0.0001$). Common acquired dermatoses in both groups were papular urticaria (11.3% in controls, 8.3% in study group) and cutaneous infections (14.3% in controls, 6.8% in study group).

CONCLUSION: Pigmentary mosaicism and CALMs were found to be significantly associated with ASD in Indian patients. Further research is required and other ethnicities should be studied to establish this association.

