ABSTRACT BOOK ABSTRACTS



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GENETICS AND GENODERMATOSES

INSULIN-LIKE GENE POLYMORPHISM IN ACNE & ITS RELATIONSHIP WITH ACNE SEVERITY & SERUM IGF LEVELS

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Introduction: Acne is the commonest disorder affecting adolescents and accounts for onefifths of visits in Pakistan. Heritability is 80% in first degree relatives. Insulin-like growth factor (IGF-1) consists of 195 amino acids, located on cytogenetic band 12q23.2 and there is 60% variability determined genetically. There is functional relationship between IGF (CA19) polymorphism, circulating IGF-1 levels and acne severity. The commonest allele contains 19 CA repeats with amplification resulting in different genotypes affecting IGF levels and acne severity.

Objectives: To determine IGF gene polymorphism frequency in acne and correlate it with serum IGF levels and acne severity

Materials & methods: It was a case-control study carried out at the Dermatology Department, King Edward Medical University/ Mayo Hospital, Lahore, Pakistan from March 2016 – 2017. Two hundred and seventy patients and 80 age and gender-matched controls, 15 – 35 years were divided clinically into mild, moderate and severe acne. IGF gene polymorphism after PCR was correlated with IGF-1 levels and acne severity. Quantitative variables were expressed as median and percentiles as data was non-normal. Comparisons were done by Mann-Whitney U test and correlations by Spearman's correlation. A p value of < 0.05 was considered statistically significant.

Results: Out of 350 cases and controls, there were 142 males and 208 females. Median age was 20 years. Ninety seven patients had mild, 108 had moderate and 65 had severe disease. Median IGF levels were 292 ng/ml. The most frequent polymorphism was 187 base pairs, both homozygous and heterozygous. In patients, 187 homozygous allele predominated. There was significant association between polymorphism and IGF levels, but not between polymorphism and severity.





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