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### Association of endometriosis and p53 gene codon 72 polymorphism in a group of Sri Lankan women

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**Objectives:** To evaluate the association between endometriosis and the p53 gene polymorphism in a group of Sri Lankan women.

**Methods:** A case control study was conducted in a tertiary care hospital where women with endometriosis (N=25) were compared with women without endometriosis (N=25), both confirmed by laparoscopy or laparotomy. Genotype distribution of the p53 codon 72 polymorphism was analyzed by allele specific polymerase chain reaction and direct sequencing. Allele frequency was compared using chi square test to determine the association.

**Results:** Allele frequencies of the three p53 genotypes, Arg/Arg, Arg/Pro and Pro/Pro in the study population (26%, 60% and 14% respectively) conformed with the Hardy-Weinberg equilibrium. There was no statistically significant difference ( $p = 0.155$ ) in the frequency of proline allele between the cases and controls {odds ratio of 1.5 (95% CI 0.83- 2.73)}. However among the women with endometriosis the proline allele frequency was 36.7% in stage IV and 50% in stage III compared to 25% and 16.7% respectively in stages II and I.

**Conclusions:** In this group of Sri Lankan women, p53 codon 72 polymorphism was not associated with endometriosis although a higher frequency of proline allele was observed in advanced stages of the disease.