

# ABSTRACT

## CLINICAL ROLE OF MICRORNA (miRNA) 196a-5p EXPRESSION IN SQUAMOUS CELL CARCINOMA OF UTERINE CERVIX

### BACKGROUND

MicroRNA's (miRNA's) are 22nt single stranded , non coding RNA's that generally negatively regulate their target messenger RNA's at the post transcriptional level. Differential expression of various microRNA's has been observed in squamous cell carcinoma of uterine cervix.

### MATERIALS & METHODS

To analyse the expression profiles of microRNA 196a-5p with HPV 16 & 18 expression , grade and the prognosis on follow up of 58 patients (n= 58) with the clinicopathological diagnosis of squamous cell carcinoma cervix. In this study, we analysed microRNA 196a-5p expression and HPV status in 58 patients with normal cervical squamous epithelial specimens using Taqman Real Time Quantitative PCR assay methods. MicroRNA expression was also compared with prognosis on followup, analysed by Kaplan Meier survival analysis.

### RESULTS

Purified microRNA expression from 58 patients with invasive squamous cell carcinoma cervix was compared with HPV 16 & 18 status, tumor grade and with prognosis on followup. In this study , there was no statistically significant correlation between HPV status and microRNA expression. There was significant association between tumor grade and the microRNA expression (  $p = .001$ ). Though there was an increase in the recurrence rate with cancers showing microRNA 196a-5p upregulation, significant statistical correlation not observed between the variables.(  $p = .177$ ).

### CONCLUSION

microRNA 196a-5p expression in combination with other microRNAs with a high diagnostic relevance can be used as a potential marker in the diagnosis, prediction and prognostication of disease.

### Key Words

MicroRNA 196a-5p, Quantitative PCR, HPV, upregulation , tumor grade