

Comparative study of clinicofunctional staging of oral submucous fibrosis with analysis of collagen fibres under polarising microscope

Ceena Denny
Manipal University, India

Aims of Study: To assess the severity of disease in Oral Submucous Fibrosis(OSF), correlate the clinical, functional and histopathological staging and analyse the collagen fibres in different stages of OSF using picosirius red stain under polarising microscope.

Methodology: The study included randomly incorporated 50 subjects of which 40 were patients with OSF and 10 were in the control group. Clinical and functional staging were done depending on definite criteria. Histopathological study was done using eosin, hematoxylin and picosirius stain. Collagen fibres were analysed for thickness and polarising colors. Further clinical, functional and histopathological staging were compared.

Results: As the severity of the disease increased, clinically there was a definite increase in subjective and objective symptoms. Polarised microscopic examination revealed that there was a gradual decrease in green-greenish yellow fibres and a shift to orange-orange red was observed as the severity of the disease. Thereby it appeared that tight packing of collagen fibres increased as the disease progressed from early to advanced stages. We also observed that the comparison of clinical staging with histopathological staging was a more reliable indicator of the severity of disease.

Discussion: As the severity of the disease increased, clinically, there was definite progression in subjective and objective symptoms. Polarized microscopy showed an increase in the thickness of the fibres and also a shift from greenish yellow to orange red as the severity increased. This could be due to the closely packed collagen fibres. We also observed that the comparison of functional staging with histopathological was a more reliable indicator of the severity of the disease.

ceen226@yahoo.com