INTRODUCTION: Pemphigus vulgaris is a rare cause of chronic ulceration of the oral mucosa and it usually precedes cutaneous lesions. Demonstration of intercellular deposition of IgG & C3 on cell surface of keratinocytes by direct immunofluorescence (DIF) of oral mucosa is the gold standard in diagnosis of oral pemphigus. Biopsy of oral mucosa for histopathology and DIF is invasive and causes discomfort for patients with oral erosions. DIF of plucked hair is non invasive and has demonstrated intercellular deposition of IgG in the outer root sheath (ORS) and is of diagnostic significance in pemphigus. So this study was to assess hair follicle as a suitable substrate to diagnose oral pemphigus.

OBJECTIVE: To compare DIF of plucked hair and oral mucosa in patients with oral pemphigus.

MATERIAL AND METHODS: 30 patients of oral pemphigus diagnosed by histopathology and/or DIF were included in the study. Hair plucked from the scalp was subjected to trichogram and anagen hair was taken. DIF was performed on the plucked hair and the oral mucosa.

RESULTS: Out of 30 patients, both oral mucosa and hair DIF was IgG & C3 positive in 16 (53.3%) and negative in 5 (16.7%).
In 2 patients (6.7%) DIF of oral mucosa was positive while hair was negative.
In 7 patients (23.3%) hair was positive while oral mucosa was negative.
DIF of hair and skin correlated with each other in 21 patients (70%).
Sensitivity of hair DIF was 88.9% and specificity was 41.7%.
The positive predictive value was 69.8% while the negative predictive value was 71.4%.
On statistical analysis the ‘p value’ was 0.053, hence proving that there was no statistically significant difference between DIF of hair and oral mucosa.

CONCLUSION: Scalp hair DIF could be an alternative procedure to diagnose oral pemphigus as it is simple, non-invasive and cost effective.