Introduction

In certain situations, the carcinoma recognized at the identical position of Qat bolus was sited during chewing. Oral cancer and also plasma-cell gingivitis also described in association with Qat chewing. The Toxigenicity of Qat ingredients has been displayed by a time dependent initiation of micronuclei in the buccal mucosal cells between Qat employers. Tight junctions (TJs), demonstration a foremost part for signaling cascades that regulator cell growing and differentiation. TJs are supposed to perform essential roles in the neoplastic procedure. Claudin-1 as the TJs protein is an essential portion of the epithelial and endothelial TJs complex, which achieves signal transduction pathways and cellular passage roles. Claudin-1 is a protein of TJs that has been revealed to be comprised in carcinogenesis and cancer advancement in numerous kinds of solid cancer.

Materials and methods:

Forty sectioned tissues, biopsies taken from Qat chewing individuals, prepared for IHC staining using the Biotin-Streptavidin immunoperoxidase technique anti- CLDN1 antibody: (Thermo Scientific RB-9209, USA). Quantification of CLDN1 positivity was performed using an image analyser computer system which measuring the area percentage of CLDN1 immunoreactivity. The positive immunoreactions of CLDN1 were detected as a brownish colour in the stained tissues.

RESULTS:

The entire specimens revealed a positive reaction for the CLDN1 in the tissues, the level of CLDN1 expression in relation to grades of epithelial dysplasia showing membranous pattern immunoreexpression and the greatest expression at mild dysplasia and decrease with increase severity of dysplasia (fig.1).
In mild dysplasia, the strong membranous immunopositivity involving the full thickness of epithelium, the nucleus negative staining left picture. In moderate dysplasia, loss of cell membrane staining of CLDN1 in lower third thickness of epithelium and –ve nuclear staining middle picture. Severe dysplasia, showing sporadic immunoreaction of cell membrane CLDN1 in upper third of epithelium thickness and losing the reaction in lower third and –ve nuclear staining right picture.

Discussion:
The results of this work demonstrated that showed strong positive membranous CLDN1 immunoreactivity. Similar findings were detected by Lee et al., (2005) (9), the expressions mainly as membranous staining. CLDN1 expression was mainly cell membrane in the most of the squamous cell carcinomas, while weak to strong cytoplasmic reaction was also seen in certain cases (12). In the existing study, the level of CLDN1 expression in relation to grades of epithelial dysplasia showing greatest expression at mild dysplasia and decrease with increase severity of dysplasia.

CONCLUSION:
there are significant differences between different grades of epithelial dysplasia in expression of CLDN1, CLDN1 may perform a function in OED development in Qat chewers and could be assist as a prognostic markers of progressive lesion.

References

Immunoexpression of CLDN1 was reported by many studies in different body organs showed decreased in some and increased in the others, the decrease reaction of CLDN1 was detected in breast Cancer (13) and prostate Cancer (14), conversely, a larger amount of further cancers comprising gastric, pancreatic (15), urothelial (16) and cervical cancers exhibited elevation CLDN1 reaction (11). Evidence proposed that CLDNs may be included in tumour advancement through the multifarious interaction with numerous extracellular matrix components (17).


