

EVALUATION OF PAPAIN BASED CHEMOMECHANICAL CARIES REMOVAL AGENT IN DENTINE OF PERMANENT TEETH: AN IN VITRO STUDY

Amer A Taqa, Ali Moayid Rasheed and Makdad N Chakmakchi

College of Dentistry-University of Mosul, Iraq

The aims of the study were to prepare herbal chemomechanical caries removal agent on papain base. The ECMCRA is an acronym of "experimental chemomechanical caries removal agent" which consists of the main gradient of papain, chloramine, toluidine blue and potassium oxalate. The pure papain was submitted to Fourier transform infrared spectroscopy (FTIR) and pH measurement at the time of preparation and also after one year of storage (CMCR). Both ECMCRA and Carisolv® were found to be conservative in caries removal, significantly reduced the cariogenic bacteria, can be employed along with adhesive systems, acceptable tissue reaction, and ECMCRA with 6% potassium oxalate reduced dentine permeability.

amertaqa@hotmail.com