

EFFECT OF ADDING CALCIUM ACETATE AND TARTARIC ACID ON SOME PROPERTIES OF TWO FORMULATED CALCIUM PHOSPHATE CEMENTS (CPC).

Mohamed T. Hamed, * Motaz Ghulman ** & Abdulghani I. Mira***

Compressive strength , diametral tensile strength and film thickness of two formula of CPC cement as affected by addition of calcium acetate and tartaric acid were evaluated. The CPC cement powder was composed of monocalcium phosphate, calcium oxide and hydroxyapatite. A 5% by weight calcium acetate, and 10 by weight tartaric acid were used as- additives. Therefore two CPC cement powders were obtained without additives and with additives. Two types of cement liquid were. wed, a 35 aqueous solution of polymethyl vinyl ether maleic acid and modified polyacrylic acid of zinc polycarboxylate. Each liquid was mixed with the cement powder to obtain 4 types of CPC cement. Polycarboxylate cement was used as a control cement to be compared with CPC cement. It was concluded that the additives increase the compressive. and tensile strength of CPC cements and decrease the film thickness.

* Lecturer , Fixed Prosthodontics Department , Faculty of Oral & Dental Medicine, Cairo University.

**Assistant Prof. , Consultant Operative / Easthetic Dentistry, Chairman, Conservative Dental Sciences Department, Faculty of Dentistry King Abdul Aziz. University.

*** Assistant Prof. , Consultant Operative Dentistry & Fixed Prosthodontics, Vice Dean for Academic Affairs, Faculty of Dentistry King Abdul Aziz University.