

SKENING ELEKTRON-MIKROSKOPSKA ANALIZA OBЛИKA I VELИČINE ČESTICA RAZLIČITIH AMALGAMSKIH LEGURA

SCANNING ELECTRON-MICROSCOPIC ANALYSIS OF SHAPE AND SIZE OF PARTICLES IN DIFFERENT AMALGAM ALLOYS

Jovanka Gašić, Jelena Daković, Goran Radičević, Milan Spasić

UNIVERZITET U NIŠU, MEDICINSKI FAKULTET, KLINIKA ZA STOMATOLOGIJU, ODELJENJE ZA BOLESTI ZUBA,
SRBIJA, SRBIJA I CRNA GORA
UNIVERSITY OF NIŠ, MEDICAL FACULTY, CLINIC OF STOMATOLOGY, DEPARTMENT OF DENTAL PATHOLOGY
SERBIA, SERBIA AND MONTENEGRO

Kratak sadržaj

Autori su postavili cilj da se ispita veličina i oblik čestica različitih amalgamskih legura pomoću skening elektronske mikroskopije. Korisćeno je sedam vrsta kapsuliranih amalgama različitih proizvođača (Dentam TM, Amalcap S. A. S., Extracap D, ANA 2000, Cavex non-gamma 2, Cavex Avalloy i Cavex Octight). Ustanovljeno je da se legure Extracap D, ANA 2000 i Cavex Avalloy sastoje samo od sečenih, iregularnih čestica, pri čemu sve tri legure pokazuju razlike u veličini partikula. Kod legure, ANA 2000, ta razlika je najizraženija. Legure Dentam TM, Amacap S.A.S. i Cavex non-gamma 2, predstavljaju kombinovane legure sa iregularnim i sfernim česticama. U pogledu odnosa sferne partikule: iregularne partikule, uzorak legure Dentam TM je pokazao najviši odnos u korist sfernih čestica u poređenju sa ostale dve legure. Legura Cavex Octight sadrži samo čestice pravilnog, sfernog oblika.

Abstract

The aim of the authors is to investigate the size and shape of particles in different amalgam alloys by using scanning electron microscopy (SEM). They have used seven types of capsulated amalgams made by different manufacturers (Dentam TM, Amalcap S.A.S., Extracap D, ANA 2000, Cavex non-gamma 2, Cavex Avalloy and Cavex Octight). It has been discovered that Extracap D and Cavex Avalloy alloys consist only of lathe-cut particles, where all of them show a great difference in particle size. The most evident difference is in the alloy ANA 2000. DentamTM, Amalcap S. A. S. and Cavex non-gamma 2 are admixed alloys with lathe-cut and spherical particles. Regarding spherical and lathe-cut particle relation, the sample of Dentam TM alloy contains the greatest number of spherical particles as compared to the remaining two alloys. The alloy Cavex Octight contains only regular – shaped spherical particles.

Ključne reči: Amalgamska legura, oblik i veličina partikula, SEM

Key words: Amalgam Alloy, particles, SEM