The effect of denture cleanser on the surface roughness of heat-cure acrylic denture base resin

Abstract:

Background: The polymethyl methacrylate (PMMA) polymer is the most popular dental resin for denture base in dentistry since many years. Rough surface are likely to occur unavoidably during the construction of a dental appliance. An acrylic denture base may exhibit minor surface roughness which needs to be removed before the denture to be polished, this roughness if not removed it will effects the mechanical properties of denture base and render it more dental plaque and satin retainer eventually less hygienic.

Aims of the study: In present study we examined the effect of denture cleanser on the surface roughness of heat-cure polymerized acrylic denture base resin.

Material and method: (50) specimens of pink heat-cure acrylic resin were prepared with dimensions of (65 mm x 10 mm x 3 mm) length, width and depth respectively according to ADA specifications 1975. The specimens were divided into (2) groups: control group consist of (25) specimens socked in distilled water and experimental group consist of (25) specimens socked in denture cleanser (protefix active) about 15 minutes for (14) days. The surface roughness measured by (Talysurf 4).

Results: The results showed a significant differences at (P < 0.05), as compared with control group.

Conclusion: it can be concluded that the surface roughness of acrylic denture base increased with the frequent used of dentures cleansers.

Key words: heat cure acrylic denture, denture cleanser, surface roughness