

## عنوان مقاله:

Comparative Evaluation of the Viability of L929 Murine Fibroblasts in the Presence of Different Concentrations of Propolis with and without Vitamin C as a Storage Medium for Avulsed Teeth

## محل انتشار:

مجله مواد و تکنیک های دندانپزشکی، دوره 11، شماره 4 (سال: 1401)

تعداد صفحات اصل مقاله: 9

## نویسندگان:

Zohreh Ahangari - *Department of Endodontics, School Dentistry, Shahid Beheshti University of Medical Science, Tehran, Iran*

Mandana Naseri - *Department of Endodontics, School Dentistry, Shahid Beheshti University of Medical Science, Tehran, Iran*

Zahra Yadegari - *Departments of Dental Biomaterials, School of Dentistry, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

Mahdieh Nakhaee - *Private Practice, Kerman, Iran*

Farhood Najafi - *Department of Resin and Additives, Institute for Color Science and Technology, Tehran, Iran*

Mojgan Feli - *Department of Endodontics, School Dentistry, Shahid Beheshti University of Medical Science, Tehran, Iran*

## خلاصه مقاله:

**Introduction:** This study aimed to assess the optimal concentration of propolis with and without vitamin C as a storage medium for avulsed teeth **Methods:** Following the preparation of L929 murine fibroblasts suspension, 5,000 cells were seeded to each well of a 96-well plate. After 24 h, the culture medium was replaced with 0.01, 0.005, 0.001, 0.0005, 0.0001, and 0.00005 concentrations of propolis(P) and propolis plus vitamin C(PC) using Dulbecco's Modified Eagle Medium. After 2, 24, and 72 h of incubation, the percentage of cell viability was determined by methyl thiazolyl tetrazolium assay, compared to the negative control group. Data were analyzed using the SPSS software (version 21). Two-way ANOVA was used to compare the means, while Tukey's test was applied for pairwise comparisons. **Results:** After 2 h, only the difference between the 0.01 concentration of P and PC was significant ( $P < 0.005$ ), such that cell viability was higher in the latter group. After 24 h, cell viability in 0.0005 and 0.00005 concentrations of P was significantly higher than that in the PC group. However, no significant difference was noted after 72 h. **Conclusion:** Cell viability was retained in all concentrations of propolis with or without vitamin C. On the other hand, with an increase in the concentration of propolis, cell viability decreased. Although PC was superior to propolis alone in cell viability; however, this effect .decreased over time such that no significant difference was noted after 72 h

## کلمات کلیدی:

Avulsion, Cytotoxicity, Fibroblasts, Propolis, Vitamin C

