The Usage of Solcoseryl Dental Adhesive Paste and its Effect on Healing Process in Patients after Dental Extraction

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Abstract

Background: Solcoseryl dental adhesive paste is a used for treatment, prevention and improvement of some disease and conditions such as: burns, wound healing impairment, ulcers, skin grafting and other conditions. So as we can see that all of the uses of this paste deal with the wound healing which bring for us an idea of using it after the extraction of a tooth and see if we will have a positive or negative effect.

Methodology: The research was conducted by giving a solcoseryl dental adhesive paste after doing a simple extraction for the patients who are attending in RAK college of dentistry. The number of participants was 20, the age range was between 20 - 50 years old, as we divided them in into two groups, one group will use the paste. While the other will go under normal healing process without the paste.

Keywords: Dental Adhesive Paste; Extraction Socket; Wound Healing Paste; Extracted Tooth; Bleeding Socket

Introduction

Extraction of the tooth is a process of pulling the tooth out of its socket which it is done by dentist and oral surgeons. There are two types of extractions: simple and surgical extractions.

In the procedure of simple extraction the patient will receive a local anesthesia to numb the area around the tooth so the patient will feel only pressure with no pain during the procedure. The dentist then pull the tooth out by using a special instruments for extraction. All of our participators undergo simple extraction process.

Solcoseryl dental adhesive paste is utilized for bleeding gastroduodenal ulcers, burns, polyneuropathy in diabetes, circulation and nourishment unsettling influences, skin joining, wound-mending weakness, performance enhancer, stroke, varicose veins, superficial venules and telangiectasia and different conditions [2].

Solcoseryl is a without protein haemodialysate, containing a wide range of low atomic segments of cell mass and blood serum got from veal calves. Solcoseryl, improves the vehicle of oxygen and glucose to cells that are under hypoxic conditions. It expands the union of intracellular ATP and adds to an expansion in the dimension of vigorous glycolysis and oxidative phosphorylation. It initiates the reparative and regenerative procedures in tissues by invigorating fibroblast multiplication and fix of the collagen vascular divider. The plans of solcoseryl are implantation, infusion, gel and treatment, and it is additionally accessible as a dental glue for provocative procedures of the mouth depression, gums and lips.

Based on an investigation did in three showing divisions of maxillofacial medical procedure the impact was broke down of Solcoseryl dental follower glue and Linomag in the treatment of intense radiation-actuated stomatitis. The two medications were viable yet Solcoseryl

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was better than the other medication since it quickened mending by about half and shaped an ensuring dressing on the aroused mucosa [3].

Utilization of new solcoseryl-containing Diplan-denta C film in the treatment of wounds of the buccal mucosa.

Clinical productivity of bilayer glue dental film Diplan-denta C with solcoseryl in the treatment of postoperative injuries of the buccal mucosa and the impacts of this film on the course of wound procedure were assessed. In the examination bunch Diplan-denta XD film with chlorohexidine was utilized for neighborhood treatment during the initial 1 - 3 days after the damage and Diplan-denta C film with solcoseryl was utilized in ensuing days until epithelialization; in controls water systems of the oral hole with chlorohexidine bigluconate arrangement (0.05%) were completed during the initial 1 - 3 days and uses of solcoseryl dental glue were made during consequent days until epithelialization. The outcomes demonstrate that the utilization of Diplan-denta C film improved the treatment of the buccal mucosa wounds [4].

An investigation was made in Kuwait of forty minor consume patients treated as out-patients from February 1994 to April 1995 (27 guys/13 females; mean age 19 yr; age run 1 - 47 yr). Twenty-six patients continued singes, five fire consumes, five contact consumes and four had electric glimmer consumes, the degree of consume went from I to 12% all out body surface, fundamentally including the lower appendages. Thirty-eight patients continued dermal consumes and two had negligible full-thickness consumes. The consume wounds were treated with topical Solcoseryl. Solcoseryl dressing was anything but difficult to utilize, agreeable and very much endured by the patients. The unconstrained injury warming in 7 to 29 days (mean 18 days) adjusted to at first surveyed consume profundity in most of patients. The great recuperating demonstrated that no post-damage extending of the consume wound had happened. The frequency of hypertrophic scarring was similarly less in Solcoseryl-treated patients. Solcoseryl therefore is a decent topical operator for the administration of minor consume wounds [6].

Materials and Methods

This research was approved by RAK Medical and Health Sciences university.

The number of participants was 20, the age range was between 18 - 50 years old.

Duration: 6 months.

Study setting: RAK College of Dental Sciences.

Study design: Clinical.

Study population: Medically fit patients in the age of 18 and above that will undergo a simple dental extraction procedure.

Sampling method: Convenient sampling.

The study will be done on a medically fit patients in the age of 18 and above who will undergo a simple dental extraction procedure.

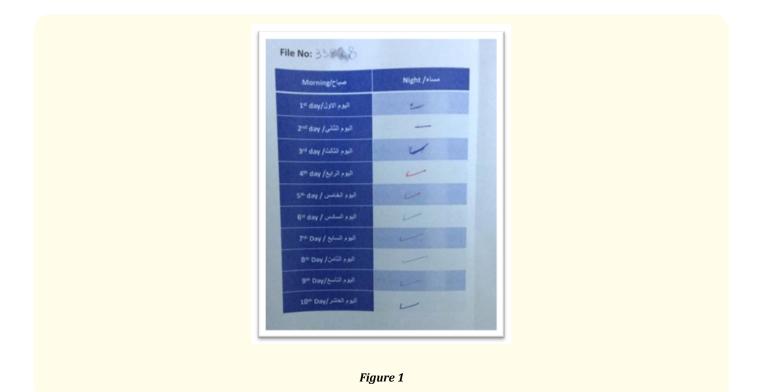
Inclusion criteria	Exclusion criteria	
1. Medically fit patients in the age of 18 and above.	1. Procedures performed on pediatric patients.	
2. Patients that needs dental extraction.	2. Not medically fit patients.	
3. The size of the sample is (20 patients).	3. Geriatric patients.	
	4. Hypersensitivity to Solcoseryl paste.	
	5. Anaphylactic shock.	
	6. Smokers and other habits that might affect the normal healing process.	

Study materials: Equipment, questionnaire, data collection forms.

Data collection procedure: The research will have two group of patients, both of the groups will have simple dental extraction, first group will apply the solcoseryl paste, and the second group will get throw the healing process without applying any paste, so we can compare between the results at the end.

Data collection form regarding the use of solcoseryl by the patient.

Morning	Night
1 st day	
2 nd day	
3 rd day	
4 th day	
5 th day	
6 th day	
7 th Day	
8 th Day	
9 th Day	
10 th Day	



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<u>measurement of the alveolar socket</u>

	1 st visit	2 nd visit	3 rd visit
Alveolar socket (mm)			
Pictures			

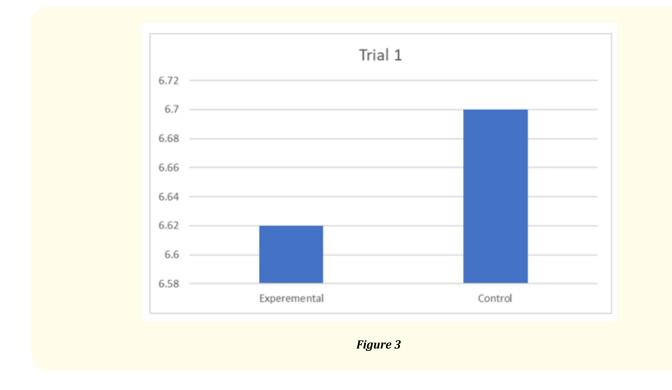
Figure 2

Results and Discussion

The first visit, the measurement of the socket was done immediately after the extraction of the teeth.

All of the patients had extracted a multi rooted tooth.

The average of the measurement of the Alveolar socket for the experimental group is 6.62, while the control group it is 6.7.



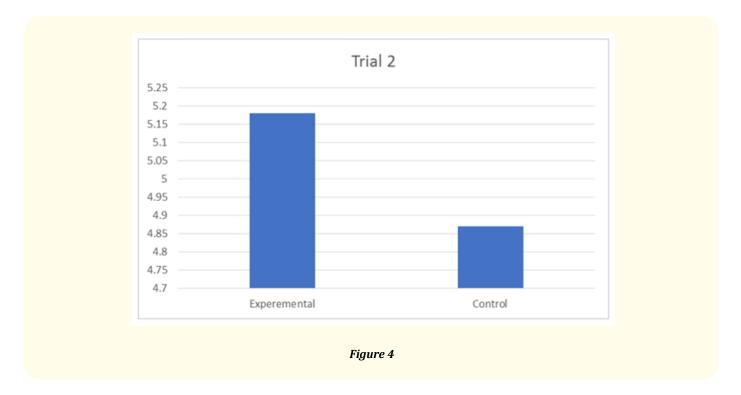
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The second visit, which is after 3 days.

The average read of the measurement of the socket for those patients who used the solcoseryl dental adhesive paste was 5.18, while for the control group it was 4.87.

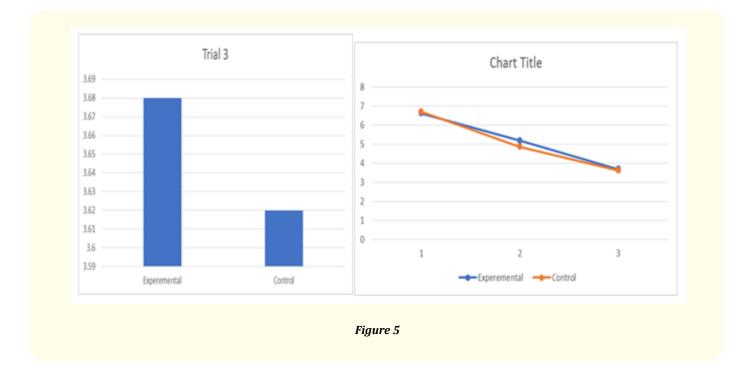
There was not any significant difference between the experimental group and the control group.



Third visit which is after 7 - 10 days.

The length of the socket in the experimental group is 3.68, while in the control group is 3.62, which is 0.06 mm difference between the experimental group and control group.

There was not any significant difference between the experimental group and control group.



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Discussion

In our research it was found that the solcoseryl didn't accelerate the healing process in post extraction socket, which doesn't agree with the statement of Kryst L as he showed in his article that the solcoseryl accelerate the healing of the extraction socket.

After a study in three maxillofacial surgery teaching hospital departments the authors evaluated the usefulness of Solcoseryl dental adhesive paste as compared to Apernyl in the treatment of post-extraction alveolitis. Solcoseryl paste was found to shorten the healing period by about 50% in comparison with Apernyl.

The results showed that the size of the extracted socket for both the experimental group and the control group had been decreased in almost the same amount.

Our results was based only in the type of the tooth, which is a multi-rooted tooth.

Conclusion

Solcoseryl dental adhesive paste didn't affect the healing process in patient after dental extraction, which we noticed in all the visits when it comes to the measure of the socket being in the normal range for both groups.

Acknowledgements

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Conflict of Interest

There is no any conflict of interest.

Bibliography

- 1. Yildirim A., et al. "Solcoseryl® Dental-Adhäsivpaste Wirkmechanismus und Risiken". Swiss Dental Journal 125.5 (2015): 612-613.
- 2. Solcoseryl Dental Adhesive Paste.
- 3. Kryst L., *et al.* "Solcoseryl--dental adherent paste in the treatment of acute radiation-induced inflammation of oral mucosa, gingivae and tongue". *Czasopismo Stomatologiczne* 43.7 (1990): 412-418.
- 4. Abakarova DS. "[Use of new solcoseryl-containing Diplan-denta C film in the treatment of injuries of the buccal mucosa]". *Stomatologiia (Mosk)* 83.4 (2004): 33-36.
- 5. Ghoneimil G and Bang RL. "Use of solcoseryl in minor burns". Annals of Burns and Fire Disasters 10.4 (1997).
- 6. Jamal Fattah Rifa. "Evaluation of the effect of Solcoseryl on wound healing in animals" (1980).

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