



Analysis of Role of Turmeric in Management of Alveolar Osteitis

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ABSTRACT

Background and objective: Alveolar osteitis created disruption in healing process after clot formation but before wound organization. The main objective of the study is to analyse the role of turmeric in management of alveolar osteitis.

Material and methods: This descriptive cross sectional study was conducted in DHQ Sargodha during Nov 2019 to Jan 2020. This study was done with the permission of ethical committee of hospital. There were 180 participants in this study. Data was collected from two study groups, one was treated with turmeric and group B was treated with Zinc oxide eugenol (Alveogel).

Results: The data was collected from 180 patients, 90 patients in each group. Group A shows symptoms of pain, swelling and halitosis from second day while Group B shows all these symptoms around day 5th. According to t-test there was a significant difference between two treatments. The significant value of $p < 0.05$. There was no side effect of turmeric observed in our study, so it can be used as an alternative for the management of dry socket.

Conclusion: It is concluded that there are no side-effects of turmeric. Excess use of eugenol, can lead to necrosis of bone. The turmeric can be used as a medicament for the management of dry socket. Excess use of eugenol can lead to necrosis of bone.

KEYWORDS: Healing, Process, Turmeric, Wound.

INTRODUCTION

Alveolar osteitis is an interruption of the healing cycle at the extraction site after clump development however before wound association. It is described by moderate to serious agony at the extraction site that typically starts 2 to 3 days after medical procedure, regularly within the sight of a necrotic smell and a grayish release¹. It is more common in females. Wound is characterized as the disturbance of the cell and anatomic coherence of a tissue of a tissue or as a break in respectability of skin or mucosa and may likewise be characterized as a misfortune or breaking of cell and anatomic of practical progression of living tissue².

Postoperative inconveniences following dental extractions are very normal, of which dry attachment is the most widely recognized. Dry attachment or alveolar osteitis was first depicted in the writing by Crawford in 1896³. Its rate ranges from 0.5% to 5%. It is essentially a condition in which there is loss of cluster from post-extraction attachment. It as a rule presents with dull-pulsating torment, halitosis, trismus, and once in a while with provincial lymphadenopathy⁴. Different treatment modalities are accessible, for example, water system of extraction attachment with warm saline or weaken hydrogen peroxide and dressing with obtundant medicament; skin use of a mix of eugenol, benzocaine, amber of Peru, Iodoform, and butylparaminobenzoate; and prophylactic organization of fundamental anti-toxin beta lactamase inhibitor containing anti-toxin, which have professed to diminish the occurrence of dry socket⁵.

Turmeric is a stunning characteristic home grown with mending properties. It has been utilized as conventional cure in ayurvedic medication for a huge number of years. It has amazing enemy of oxidant and mitigating properties⁶. Turmeric has numerous significant segments however the one appears getting consideration is curcumin. Curcumin is a yellow shade present in the spice turmeric (*curcuma Longa*) and has been connected with against oxidant, calming, hostile to proliferative, hostile to diabetic, against malignant growth, hostile to viral and against Rheumatic impacts. Different substances like tissue removes, nutrients and minerals and No of plant items have been accounted for by different laborers to have genius recuperating effects⁷. Wound recuperating herbals quickens blood thickening battle disease and quickens the injury mending moreover. Plants or synthetic substances got from plants should be recognized and detailed for treatment and the executives of wounds⁸. No of home grown items are being examined at present and different home grown items have been utilized in the board of wounds throughout the years, not many of them are Aloe Vera, Neem, cedrus, turmeric, jasmine auriculatum⁹.



The basic aim of the study is to analyse the role of turmeric in management of alveolar osteitis.

MATERIAL AND METHODS

This descriptive cross sectional study was conducted in DHQ Sargodha during Nov 2019 to Jan 2020. This study was done with the permission of ethical committee of hospital. There were 180 participants in this study.

The study was divided into two groups,

Group A: only treated with turmeric and

Group B: only treated with Zinc oxide eugenol (Alveogel).

Inclusion criteria

- Patients who were willing to participate in this study.
- Patients with dry socket postextraction.

Exclusion criteria

- Patients with multiple disorders, DM and any other blood disorder were excluded from this study.
- Patients who were on steroid therapy.
- Pregnant and lactating mothers.

Data collection

Data was collected from two study groups, one was treated with turmeric and group B was treated with Zinc oxide eugenol (Alveogel). Each group contain 90 patients for collecting the data. Pain was estimated by the Visual Analog Scale (VAS). As per this scale, patient's torment was classified as gentle (1–4), moderate (5–7), and serious (8–10). Affectability on delicate examining of the extraction attachment was considered on all or none premise.

Statistical analysis

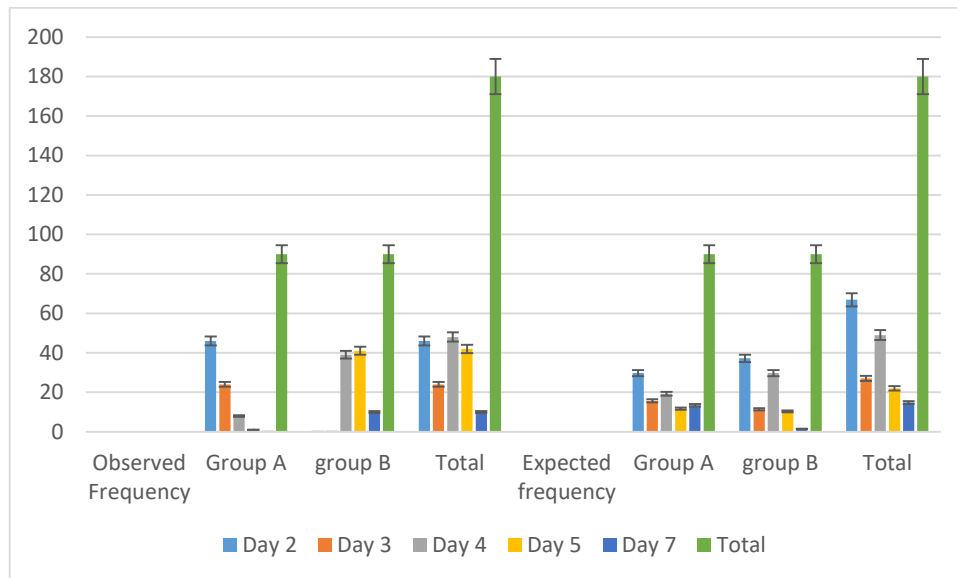
The data were collected and analysed using SPSS 17. All the values were expressed in mean and standard deviation.

RESULTS

The information was gathered from 180 patients, 90 patients in each Group. Group A shows symptoms of torment, expanding and halitosis from second day while Group B shows every one of these side effects around day fifth. As indicated by t-test there was a huge distinction between two medicines. The huge estimation of $p < 0.05$. There was no symptom of turmeric saw in our investigation, so it very well may be utilized as an option for the administration of dry attachment.

Table 01: Analysis of t-test according to SPSS

Group	Day 2	Day 3	Day 4	Day 5	Day 7	Total
Observed Frequency						
Group A	46	24	8	1	0	90
group B	0	0	39	41	10	90
Total	46	24	48	42	10	180
Expected frequency						
Group A	29.71	15.64	19.28	11.71	13.36	90
group B	37.18	11.36	29.72	10.29	1.45	90
Total	66.89	27	49	22	14.81	180
t-test values						
df	3					
p	1.47					
α	0.05					



DISCUSSION

Natural products have been used for several years in folk medicine. Turmeric has a viable antibacterial potential to battle oral microbes and hold guarantees for the treatment of periodontal ailments and mouth ulcers¹⁰. Turmeric was utilized to regard contaminated injuries as quite a while in the past as 2000 years before microscopic organisms was found to be reason for disease. 50 AD Dioscorides portrayed turmeric as being useful for all bad and empty ulcers. Turmeric has been accounted for to have an inhibitory impact to around 60 types of microscopic organisms including aerobes and anaerobes. Gram-positive and Gram negative microorganisms¹¹.

During a century ago numerous endeavors have been made to discover legitimate method of forestalling and the board of dry socket and enormous no of clinical investigations have been completed in these subjects¹². Clinical treatment of wound incorporate organization of medications either locally or foundationally trying to help wound fix. Different natural items have been utilized in wound administration like, Aloe Vera, Neem, and turmeric. Turmeric, curcuma longa, cedrus deodar, jasminum auriculatum. Turmeric has been utilized in the board alveolar osteitis¹³.

C.longa ordinarily known as turmeric and Haldi in Hindi has been accounted for to have antibacterial, against parasitic exercises. Turmeric extricate rich in curcuminoids a generally known for its mitigating, hostile to oxidant and against microbial properties¹⁴. The mitigating properties of curcumin were appeared to restrain the 5-lipoxygenase action in rodent peritoneal neutrophils just as the 12-lipoxygenase and the cyclooxygenase exercises in human platelets¹⁵. Curcumin had no critical impact on quercetin-actuated atomic DNA harm, lipid per oxidation and protein corruption and along these lines has the one of a kind capability of going about as both master and cancer prevention agents, contingent upon the redox condition of their organic condition. Broad in vitro and in vivo testing has demonstrated that turmeric restrains synthetically incited epidermal ornithine decarboxylase action, epidermal DNA union, and the advancement of skin tumors in mice¹⁶.

CONCLUSION

It is concluded that there are no side-effects of turmeric. Excess use of eugenol, can lead to necrosis of bone. The turmeric can be used as a medicament for the management of dry socket. Excess use of eugenol can lead to necrosis of bone. Turmeric can be used as a medicament for the management of dry socket.

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Cite this Article: Dr. Muhammad Noman Iqbal, Dr. Anza Ashraf, Dr. Maria Mustafa (2022). Analysis of Role of Turmeric in Management of Alveolar Osteitis. International Journal of Current Science Research and Review, 5(6), 1918-1921