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Original research article

# Role of turmeric in management of alveolar osteitis (dry socket): A randomised clinical study

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#### ABSTRACT

Plants & their extracts have immense potential for the management or treatment of the wounds. The pyhto medicines for the wound healing are not only cheap & affordable but are purportedly safe as hypersensitivity reactions are rarely encountered with the use of these agents, these natural agents induce healing & regeneration of the lost tissue by multiple mechanisms Turmeric commonly is called as Haldi in Hindi. C Longa has been reported to possess anti bacterial, anti fungal & anti inflammatory activities. Turmeric is known as traditional herb to Asia & India also called as curcuma longa, with maximum healing properties & other great uses. It is widely used in India & China for traditional Chinese medicine. This act as anti inflammatory agent to treat different kind of diseases & health problems. Aims & objectives: The aim of this study was to study the therapeutic, healing benefits of turmeric, an herb commonly used in Asia

Material & methods: The study was conducted in department of oral & maxillofacial surgery of Indira Gandhi government dental college jammu.178 patients were selected from the outpatient department of oral & maxillofacial surgery. The diagnosis of dry socket was made clinically. Turmeric dressing with mustard oil was given in group A & in group B ZOE dressing was given.

Results: In this study there was significant reduction in pain, inflammation & discomfort after turmeric and ZOE dressing. Wound healing was seen faster, than dressing with ZOE. There is no side effect of Turmeric. Statistical analysis was done p < 0.05, was found statistically significant

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#### 1. Introduction

Wound is defined as the disruption of the cellular & anatomic continuity of a tissue of a tissue<sup>1</sup> or as a break in integrity of skin or mucosa & may also be defined as a loss or breaking of cellular & anatomic of functional continuity of living tissue.<sup>2</sup> Wound may be produced by physical, chemical, thermal, microbial or immunological insult to the tissues & damage to the skin or mucosa is a good medium for entry & growth of micro organism.

Alveolar osteitis also called dry socket is the most common post extraction complication of teeth, most commonly occurring in 40–45 years of age. Traumatic extraction, aggressive curettage & irrigation, oral microorganisms, remaining fragments of bone &

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root in extraction wound, dislodgement of blood clot by excessive mouth rinsing & gargles by patient, oral contraceptives & smoking are important etiologic factors responsible for dry socket. There is loss of blood clot from socket. Symptom ranges from mild discomfort to sever pain, radiating to temporal region, TMJ, ear & eye, halitosis, empty socket & Trismis.

There are various modalities used for management of dry socket like use obtund ant & pain reducing dressing such as zinc oxide euginol dressing, anti infective agents, systemic or local, anti fibrinolytic agent & surgical intervention to remove necrotic clot & encourage the formation of blood clot. Treatment include administration of drugs either locally or systemically in attempt to initiate wound repair. The topical agents include antibiotic & antiseptic, dislodging agent (chemical debridement eg hydrogen peroxide, eusol & collagenase ointment). Wound healing promoters eg tretinoin, aloe Vera extract honey comfrey, benzoyl peroxide, dexapanthol, tetrachloridecaxide solution, clostebol acetate & chamomillia

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Various substances like tissue extracts, vitamins & minerals & No of plant products have been reported by various workers to possess pro healing effects. Wound healing herbals accelerates blood clotting, fight infection & accelerates the wound healing also. Plants or chemicals derived from plants need to be identified & formulated for treatment & management of wounds. No of herbal products are being investigated at present & various herbal products have been used in management of wounds over the years, few of them are Aloe Vera, Neem, cedrus, turmeric, jasmine auriculatum.

Turmeric is an amazing natural herbal with healing properties. It has been used as traditional remedy in ayurvedic medicine for thousands of years. it has powerful anti oxidant & anti inflammatory properties. Turmeric has many valuable components but the one seems getting attention is curcumin. Curcumin is a yellow pigment present in the spice turmeric (curcuma Longa) & has been linked with anti oxidant, anti inflammatory, antiprolifeartive, anti diabetic, anticancer, anti viral, & anti Rheumatic effects.

In India & Asia this native traditional herb is called holy powder because of its anti inflammatory properties to treat different kinds of diseases & health problems, digestive difficulties, treatment of infections & wounds. It is only soluble in fat, so curcumin is best to combine with fats, coconut milk, ghee, butter, oils etc.<sup>11</sup> In the present study turmeric powder was mixed with mustard oil to make paste.

#### 2. Methodology

A total of 178 patients of dry socket were selected from outpatient department of Oral & Maxillofacial surgery. Patients with systemic ailments like diabetes, patients on steroid therapy, hypothyroid patients, pregnant & lactating mothers were not included in the study. The informed consent was taken from the patient. Diagnosis of dry socket was made clinically. Wound was checked for necrotic bone, fetid odour, pain swelling, and pus discharge. Patients were divided in two groups

GROUP A was treated with a dressing of turmeric & mustard oil. GROUP B was treated with zinc oxide euginol dressing.

Dried Rhizome of C longa (Haldi) collected from local market was crushed into powder using a mechanical blender. The fine powder was obtained after sieving using 150 Mm sieve. This powder was stored & fresh dressing using sterile gauge & mustard oil was prepared. This dressing was done on alternate days till symptoms subsided. After irrigation with saline socket was packed with dressing. (Figs. 1–3) This study was under taken to evaluate the effect of turmeric dressing in management of dry socket wound

Fig 2. Dressing prepared.



Fig. 3. Dressing in socket.

Fig. 1. Dry socket wound.

**Table 1**Number of patients revealed subsided symptoms in different days of dressing.

Group	Day of dressing						Total
	2nd	3rd	4th	5th	6th	7th	
Group A group B	55 0	25 0	10 40	0 37	0 0	0 11	90 88
Total	55	25	50	37	0	11	178

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