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Non-healing Ulcer Treated with Unani Formulation *Zaroor-e-Qaw*. A Case Report

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Abstract

Non-healing ulcers (*Qurooh-e-Aseeerat-ul-Indamaal*) are those ulcers which do not heal by conservative treatment within six weeks. About 1% of total western population suffers from non-healing ulcer. In Indian community its prevalence reported in year 2004 was 4.8 per 1000 populations. This estimate is likely to increase many folds because of the increasing population of elderly people and the people with uncontrolled diabetes mellitus, arterial and venous diseases. It badly affects the patient's quality of life and also increases the risk of prolonged hospitalization and thereby increases the cost of health care. Non-healing ulcer is a leading cause of amputation and wound related morbidity. In view of its common prevalence and non-availability of affordable treatment, it is worthwhile to look towards Unani system of medicine where non-healing ulcer can be treated efficiently with the drugs having 'mujaffif, khatim, daaf-e-taaffun and mundammil-e-qurooh actions. In the present case report, a male patient of age 57 years, who presented with wound on the left foot, since last two years and presence of maggots in the wound since 1 month, treated with topical application of Unani formulation Zaroor-e-Qawi. At the end of 50th day approximately of 97.6% of wound area healed and remaining 2.4% of unhealed area covered with healthy granulation tissue. The Unani formulation Zaroor-e-Qawi appears to be effective in the treatment of non-healing ulcer and it can prove to be an alternative to the conventional treatment of non-healing ulcer.

Keywords: Non-healing ulcer; *Qurooh-e-Aseeerat-ul-Indamaal*; *Zaroor-e-qawi*; Unani medicine

Introduction

Non-healing ulcers (*Qurooh-e-Aseeerat-ul-Indamaal*) are those ulcers which do not heal by conservative treatment within six weeks. In Unani system of medicine *Qaraha* (ulcer) is defined as the *Jarahat* (wound) which contains pus within it and *Jarahat* (wound) is defined as *Tafarruq-e-ittesal* (damage) of the lahem (muscles). So any *Jarahat* (wound) in which, there is pus formation or pus collection is called as *Qarha*. The causative factors of the *Jarahat* (wound) may be berooni (external) and androoni (internal). Literature of Unani medicine describes three types of *Qurooh* (ulcers);

Qurooh-e-baseet (Simple Ulcer): Those ulcers which are free from those factors which delay in wound healing.

Qurooh-e-murakkab (*Compound Ulcers*): Those ulcers which are associated with blackening of tissues, pain and suppuration.

Qurooh-e-Aseeerat-ul-Indamaal (Non-Healing Ulcers): Those ulcers in which healing are delayed and are associated with more damage and destruction of the surrounding tissues [1,2].

About 1% of total western population suffers from non-healing ulcer. In Indian community its prevalence reported in year 2004 was 4.8 per 1000 populations [3]. This estimate is likely to increase many folds because of increasing population of elderly people and the people with uncontrolled diabetes mellitus, arterial and venous diseases. It badly affects the patient's quality of life and also increases the risk of prolonged hospitalization and increases the cost of health care. Non-healing ulcer is a leading cause of amputation and wound related morbidity. In view of its common prevalence and non-availability of affordable treatment, it is worthwhile to look towards Unani system of medicine where non-healing ulcer can be treated efficiently with the drugs having 'mujaffif, khatim, daaf-e-taaffun and mundammil-e-qurooh actions.

Case Presentation

Presentation of the patient

A male patient of age 57 years visited the surgery OPD at our

institute on 06-10-2017 with the chief complaint of wound on the left foot, since 2 years, pain and discharge from the wound since 1½ years and presence of maggots in the wound since 1 month.

Medical presentation

According to the statement of the patient, he was apparently well approximately 02 years back; following this; he received an injury over the upper and outer portion of his left foot, just below the ankle joint. The injury occurred from falling of a wooden board on his left foot. Only a small amount of bleeding occurred from the site of injury. After 1 or 2 days a small blister appeared at the site of injury. The blister was filled with pus and it was very painful. After 2-3 days, the blister got ruptured on its own giving rise to pus discharge from it. In very few days the site of blister got eroded and took the shape of a small wound. The size of this wound increased gradually over the period of 2 years and acquired the present size. The wound was also associated with a continuous aching pain. The pain was mild to moderate in intensity and was localized in the area of wound and it did not radiate or referred to anywhere. He also complained of foul smell from the wound and presence maggots in the wound from one month. History of venous flush ligation of left leg present, ligation done approximately 13 years back. The patient is non-hypertensive and non-diabetic and there is no h/o P. Koch's, STD and HIV. With the above complain he visited the several nearby hospitals where conservative treatment was given and

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dressing of the wound done with antiseptic solution but no significant relief achieved and the wound showed no tendency towards healing even after regular follow up for months. With the same complain he visited the surgery OPD at our institute and was admitted for further evaluation and management with Unani formulation.

Local examination

Investigations: Patient was routinely investigated after admission. His hematological values were Hb 14.8%, TLC 10,000 cells/mm [3]; Differential counts (polymorphs 65%, lymphocytes 10%, eosinophils 03%, and monocytes 04%, basophils 0.0%) and ESR 34 mm/1hr. Biochemical values were normal i.e., random blood sugar 118 m/dl. Serological test like HIV I and II non-reactive and HBsAg-negative (Table I).

Treatment given to the patient

On the basis of careful history, physical examination, and local examination and on the behalf of investigations, the patient diagnosed as the case of non-healing ulcer and Unani formulation *Zaroor-e-Qawi* was prescribed for the local application over the wound. Initial step of the treatment was to remove the maggots from the wound. For this purpose, wound toileted with turpentine oil, followed by cleaning of the wound with normal saline. After this Unani formulation *Zaroor-e-Qawi* dusted over the wound and dressing done with sterilized gauze piece and bandages. Dressing of the wound changed on every third day

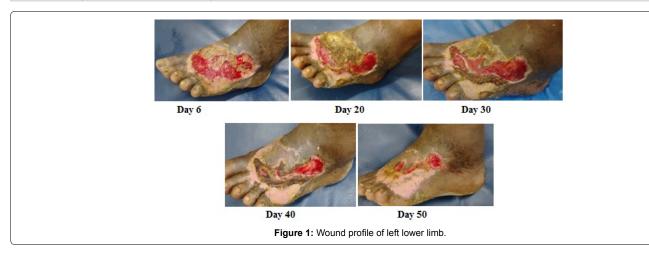
and debridement of the wound done, as per the need to remove the dead and devitalized tissue. Mobilization of ankle joints and phalanges maintained to prevent arthrosis. Patient was instructed to maintain Personal hygiene.

Discussion

After the proper assessment of the wound, a two months regimen was designed for the local application of above mentioned formulation. Response could be seen by the 2nd day of dressing and a promising response observed at end of 50th day of the treatment. At the start of the treatment the size of the wound was approximately $10 \times 6 \text{ cm}^2$ and at the end of 50th days of treatment, the size of the wound decreased to 2 × 2 cm² i.e., approximately 97.6% of wound area, healed completely with healthy epithelial covering and remaining approximately 2.4% of wound area was covered with red healthy granulation tissue. Depth of the wound also decreased significantly. Before the start of the treatment the depth of the wound was approximately 1 cm but at the end of 50th day of the treatment depth of the wound decreases significantly and wound became superficial. Discharge from wounds decreased after 5th days of dressing and it cessed after 15th days. Foul smell decreased after 6th day and was completely absent by 15th day of dressing. Growth of red healthy granulation tissues occurred within 2 weeks and the surrounding pigmentation also improved and attained its normal texture and colour at the end of 40th day of the treatment (Figure 1). In Unani system of medicine non-healing ulcer can be treated

Table I: Wound profile of left lower limb.

Characteristics		Findings
Inspection	Site	On the dorsal aspect of left foot extending from lateral malleolus to the proximal phalanges
	No. of wounds	One
	Size of wound	Approximately 10 × 6 cm ²
	Edges	Sloppy
	Margin	Edematous
	Floor	Filled with unhealthy granulation tissue and Yellowish colour slough
	Discharge	Purulent discharge present
	Surroundings	Slightly pigmented
	Visible veins	Few dilated and tortuous vein present on the posterior and medial aspect of the limb
	Smell	Foul smell present
	Maggot	Present, seen creeping out of the wound
	Other findings	Nails brittle, Mark of previous operation for venous flush ligation present on the limb
Palpation	Local temperature	Raised
	Tenderness	Present
	Margins	Indurated
	Base	Phalanges of left foot
	Depth	Approximately 1 cm
	Bleeding on touch	Not present
	Other findings	All arterial pulsations of lower limb normally appreciable



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efficiently with the drugs having 'mujaffif, khatim, daaf-e-taaffun and mundammil-e-qurooh actions All these properties are found in the constituents of the Zaroor-e-Qawi. It constituents are:

Sibr zard (Aloe barbadensis): Mujaffif-e-qurooh (Desicant), Mundammil-e-qurooh (healing drug) and khatim (Cicatrizent) [4,5].

Amba haldi (Curcuma aromatic): Mujaffif-e-qurooh (Desicant), Mundammil-e-qurooh (healing drug), Muhallil (anti-inflammatory), Man-e-alam (analgesic), Daaf-e-taaffun (antiseptic).

Gulnar (Punica granatum Linn): Mujaffif (Desicant), Habis-ud-dum (hemostatic), Mundammil-e-qurooh (healing drug).

Mur maki (Comiphora myrrh): Daaf-e-taaffun (antiseptic), Mujaffif-e qurooh ((Desicant), Mundammil-e-qurooh (healing drug) and khatim (Cicatrizent) [4,5].

Mazoo (Quercus infectoria): Mujaffif-e-qurooh (Desicant), Mundammil-e-qurooh (healing drug), Habis-ud-dam (hemostatic), Daaf-e-taaffun (antiseptic), khatim (Cicatrizent) [4,5].

As per the concept of Unani medicine, the actions of all above constituent are favorable for the treatment of non-healing ulcer. It is difficult to manage a case of non-healing ulcer by conventional therapy of antiseptic dressing and debridement. Advanced wound care therapies like Skin grafting, hyperbaric oxygen therapy, topical application of platelet derived growth factors (PDGF) and vacuum assisted wound closure have limitation in their applicability and uniformity in the treatment. An unfavorable condition leads to the rejection of skin graft. In hyperbaric oxygen therapy, oxygen in high dose exerts toxic effects on tissue perfusion especially on lungs and brain tissue. Topical application of platelet derived growth factors (PDGF) is indicated only in non-infected and non-ischemic non-healing ulcer and its

higher doses may results in increased incidence of cancer. Vacuum assisted wound closure can be applied only in cases where haemostasis has been achieved completely, so it cannot be applied in the patients with coagulopathies [6,7]. Such limitations and complexities of the treatment could not see in this case. Treatment through the local application of *Zaroor-e-Qawi* is very simple and convenient and above all also cost effective.

Conclusion

Unani formulation *Zaroor-e-Qawi* conserves the potency for the treatment of non-healing ulcer and it may be establish as an alternative to the conventional therapies. It not only removes the dead and devitalized tissue but also ensures the growth of healthy granulation tissue and epithelization. In order to validate its efficacy in the treatment of non-healing ulcer, it should be evaluated on large sample size.

Conflict of Interest

The authors report no conflict of interest.

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