

## Hazim Alhiti's Method for Local Burn Treatment

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### ABSTRACT

In July 2017, an Iraqi teenager girl suffered an acute burn on her right foot. She was in distress, in severe pain, with all stages of the burn. After the girl/her family's consent, I gave analgesia; utilized a mixed solution of olive oil and honey; dressed the burn; washed the oil mixture after one hour; encouraged the girl to walk with analgesi; ordered nutritional support; advised her to lift her burnt foot during rest. Two weeks later, this girl had an itching, so I applied cactus oil twice daily. After four weeks, the girl walked better, and the burn healed.

### Keywords:

Burn, Treatment, Olive oil, Honey, Cactus oil

### Abbreviations:

ABC: Airway, Breathing, Circulation; IASJ: Iraqi Academic Scientific Journals; NSAID: Non-Steroidal Anti-Inflammatory Drugs; mg/dl: milligram/decilitre; Q6H: Every 6 Hours; TID: Three Times a Day; OD: Once Per Day; PO: Per Oral

### Introduction

Indeed, a burn denotes damage to the skin and underlying tissues by burning agents. Accordingly, the most common cause is a hot subject like fire, hot materials, steam, boiling liquids, or sunlight. Moreover, electricity, radiation, and corrosive chemicals cause burns. Subsequently, scientists classify burns into six degrees: relying on the severity and depth of skin plus tissue damage. Superficial burn (first-degree), superficial partial-thickness burn (second-degree), deep partial-thickness burn (second-degree), full thickness of skin plus subcutaneous tissues (third-degree burn), charred skin plus exposed bone (fourth-degree burn), white skin plus exposed bone (fifth-degree burn), lost skin plus exposed bone (sixth-degree burn) [1].

However, doctors applied numerous strategies to calculate the burn area through estimation of the percentage of the total body surface area of the burn. Furthermore, these methods allowed physicians to estimate the indications for hospital admission plus the estimation of percentage fluid requirements.

Indeed, the first primacy in the management of burn is to stop the fire and protect the victim from the continuous burning process. Consequently, ABC steps for life-saving are mandatory actions such as airway, breathing, and circulatory access, synchronized with the assessment of the burnt patient. Hence, burn is a life-threatening assault, provoking a medico-legal issue, and one of the top priorities in any emergency faculty. Moreover, physicians ordered hospital admission for burnt victims (as indicated) and referred many of them (as required) to a specialized burn center.

Ordinarily, health institutions ordered different protocols and guidelines for local burn treatment [2].

Accordingly, some doctors use a mnemonic of six (Cs): cleaning, cooling, clothing, chemoprophylaxis, comforting, then covering. Moreover, doctors encourage the victim to wash the burnt region underneath cool running tap water or use a soft wet dress to relieve pain, although there are myths about traditional medicine for employing yogurt or toothpaste. Further, physicians order the patient to remove restrictive clothes.

Subsequently, the nurse does burn debridement under sedation, apply local antibiotic as lotion or gel, cover the burn, and give a pain reliever. Hence, health medics repeat this process daily in the hospital or at home. Indeed, the dressing use and its type selection vary widely according to the healthcare favorite and experience. Ordinarily, commercial items advanced rapidly in their types, mechanisms of action, usage, sizes, materials, physical and chemical properties, qualities, and patient preference [2].

Indeed, four hundred and six papers concerning (burn) in the Academic Journals of Iraq (IASJ). Moreover, these Iraqi articles studied burns in different Iraqi cultures and healthcare institutions. Accordingly, Iraqi researchers investigated the epidemiology, types of burns, clinical features, infections, antibiotics, technologies, management of burns, outcomes, and complications of burns. Fortunately, three Iraqi papers examined the efficacy of honey in the topical treatment of burns. Indeed, the Academic Journals of Iraq (IASJ) included one hundred and sixty-eight articles concerning olive oil, despite a lack of studies concerning the use of olive oil in treating burns.

Hence, this is a case report of my method (Hazim Alhiti Method), in which I applied honey and olive oil then cactus oil for local treatment of burns.

### Case Report

Indeed, in July 2017, an Iraqi teenage girl (16 years old) suffered an acute burn on her right foot from boiling cooking oil 15 minutes before I saw her. Notwithstanding, she stood distressed, anxious, and painful limping (pain score 10/10). Subsequently, I calmed the girl/her family; then cleaned the burn with running tap water; there were all the stages of burns; the most affected area is in the dorsal aspect of the lateral toes.

Ordinarily, I took the girl/her family's consent; I elevated

the affected leg, gave analgesia, shielded the burn with topical antibiotic cream, and covered it with a clean dressing. Furthermore, I ordered systemic antibiotics (cefixime 250 mg/dl Q6H/ PO) with NSAID pain reliever TID/ PO. This burn counts 4 % TSBA. I used the rule of 9 for TSBA. In this case it is an imaginary %.

Indeed, during the second visit, the girl had pain (pain score 8/10) with the swollen right foot, dirty dressing, and many blisters. So, she was afraid of looking at the burnt foot. Accordingly, I gave her pain killer, calmed the girl/her family, ran tap water over the burnt foot, gently opened the blisters, and cleaned the remaining burn.

Moreover, I covered the burn with a mixed solution of olive oil and honey; I dressed the burn lightly. Further, I reminded the girl/her family to wash the oil mixture after one hour. Henceforth, I gently encouraged the girl to walk by the burnt foot with a pain reliever. Furthermore, I ordered her nutritional support and advised the girl to lift her burnt foot during rest with two soft pillows to lessen swelling.

I encouraged the girl to increase her intake of water, citrus, eggs, dairy products, meat, and vegetables. Hence, the above diets contain the required vitamins and minerals for healing, like vitamins A, C, Iron, and multivitamins. I took into my consideration the girl/her family's financial situation. Thus, the total cost of all the natural products (honey-olive oil mixture) and the cactus oil was fifteen dollars (15 \$).

Indeed, I repeated this method once daily and taught the girl and her family to repeat this process thrice daily for two weeks, by which I followed up the burn interestingly. Fortunately, there were rapid and marked improvements in the burn appearance, patient's movements, diminished foot swelling, pain score (5/10), fever subside and return to normal, sleeping better, plus improved functions of the ankle and other small joints.

Ordinarily, two weeks later, this girl suffered from itching in the burn area. Consequently, I applied cactus oil twice daily with a thin bandage. Consequently, I ordered the girl/her family to recover the olive oil OD alternatively with the cactus oil.

Fortunately, after four weeks, the gait returned to normal, and the burn improved remarkably. Moreover, I stopped systemic antibiotics one week behind the burn; I lessened the frequent use of the honey/olive oil mixture and ceased it in the fourth week. Similarly, I decreased the routine usage of the cactus oil and then stopped it in the sixth week. Accordingly, the pain score diminished gradually to (2/10) over subsequent days, with a return to the normal range of all foot joints in the sixth week.

Unfortunately, I did not have the pictures of the acute burn of this girl nor the same burn in its follow-up. Moreover, I recorded photos of the same burn these days. Accordingly,

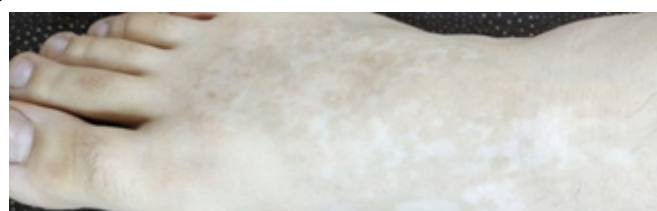


Figure 1: Illustrates the whole right foot with post-burn pigmentation.

the reader notices the post-burn pigmentation without ulcers, contractures, or limitations of joints (Figure 1-4).

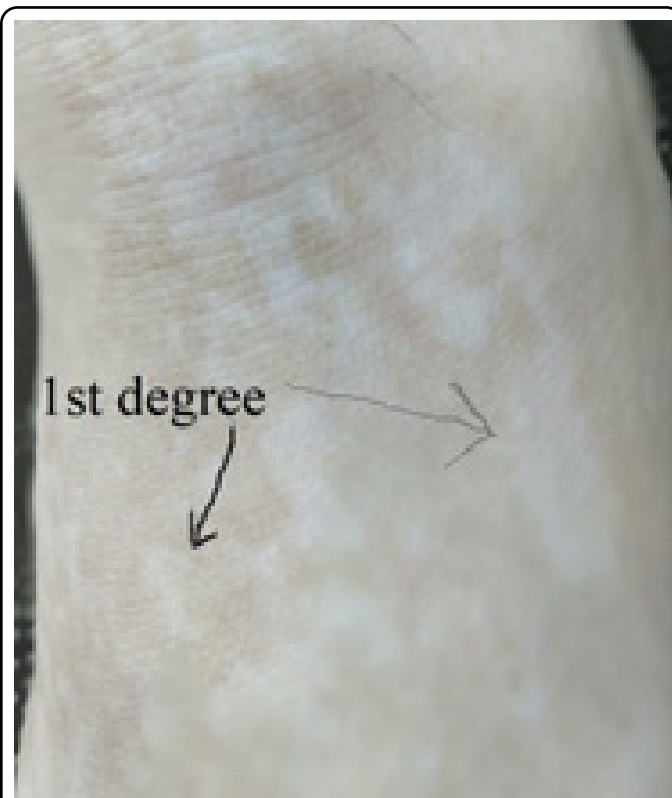


Figure 2: Illustrates the dorsum of the right ankle with a first-degree burn.

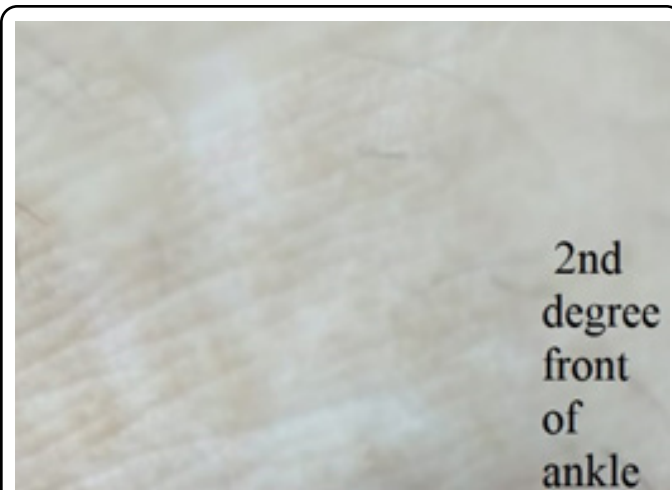
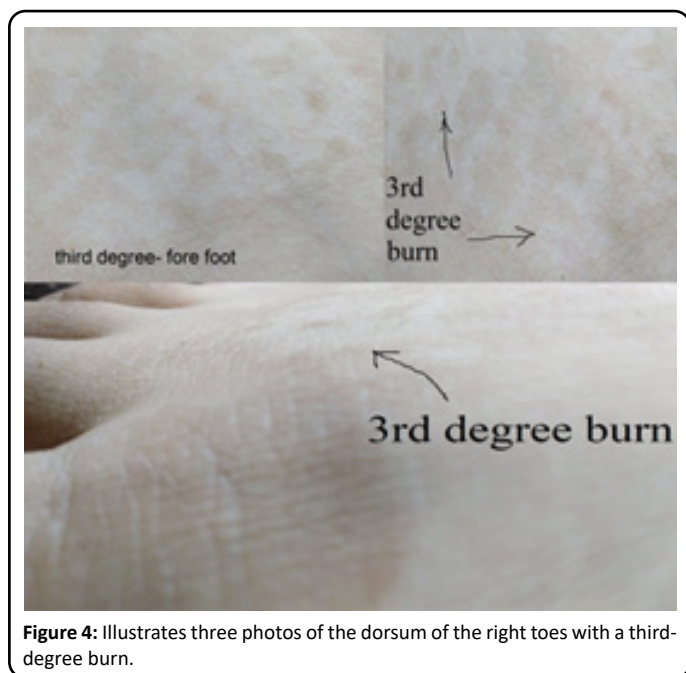


Figure 3: Illustrates the dorsum of the lateral side with a second-degree burn.

### Discussion

Ordinarily, burn causes harm to the skin and underlying tissues via any burn mechanisms. Moreover, the first aid of any burnt victim is to arrest the fire and do the (ABC steps) during the examination. Accordingly, the health organizations commanded different guidelines for local burn treatment. Subsequently, there are four hundred and six papers concerning (burns); three Iraqi articles examined the efficacy of honey in the topical treatment of burns, despite a lack of studies concerning the use of olive oil in treating burns in the Academic Journals of Iraq (IASJ). Hence, this is a case report of my method (Hazim Alhiti Method), in which I applied honey and olive oil then cactus oil



**Figure 4:** Illustrates three photos of the dorsum of the right toes with a third-degree burn.

for local treatment of burns.

Indeed, this Iraqi teenager girl is one of my patients; I saw her in July 2017; she suffered from a sudden burn on her right foot from boiling cooking oil 15 minutes before I saw her. Accordingly, she was in distress, anxious, and painful limping (pain score 10/10). Hence, burn is the most painful injury and disturbing event to the victims and their families. Subsequently, burns are the familiar avoidable hurt in the home or daily work. Furthermore, acute burn carries the most painful harm.

Indeed, calming the girl/her family is a fundamental healthcare duty to diminish the psychological stress and lessen the catabolic process. Moreover, cleaning the burnt area with running tap water aimed to remove the dead tissue plus the remaining boiling oil. Furthermore, the duration of burning oil exposure and its temperature caused the various stages of burns, which is the dorsal aspect of the lateral toes in this case. Similarly, I ordered her nutritional support to enhance wound healing, body anabolism, and regeneration of the normal epithelial cells [3].

I encouraged the girl to increase her intake of water, citrus, eggs, dairy products, meat, and vegetables. Hence, the above diets contain the required vitamins and minerals for healing, like vitamins A, C, Iron, and multivitamins. I took into my consideration the girl/her family's financial situation. Thus, the total cost of all the natural products (honey-olive oil mixture) and the cactus oil was fifteen dollars (15 \$).

Ordinarily, I elevated the affected leg to lessen swelling, gave analgesia to alleviate pain, shielded the burn with a topical antibiotic cream to prevent wound infections, and covered it with a clean dressing to avoid contamination. Further, I ordered systemic antibiotics to prevent systemic sepsis; despite I recommended oral (cefixime 250 mg/dl Q4H/PO) as it is not widespread burn, it counts 4 % TSBA. I used the rule of 9 for TSBA. In this case it is an imaginary %.

Ordinarily, the sequel of correct management with elevation reduces the pain score to (8/10), despite the dirty dressing

and many blisters because of the pathophysiological (cellular and humoral) mechanisms. Indeed, in this burn (an open wound), the pus and extracellular fluids discharge without intra-compartmental pressure. Moreover, the girl/her family was afraid of looking at the burnt foot due to the outpouring of secretions and fear of expected pain. So, I gave her an NSAID pain killer and talked with them for psychological support. Subsequently, I ran tap water continuously over the burn for washing and gently opened the blisters.

Indeed, I chose honey for its documented characteristics against bacteria, viruses, and pathogenic organisms. Moreover, honey is a natural product, easy to get, and cheap: these features encourage me to cover the burn with no rejection from the girl/her family [4].

Accordingly, olive oil eases joint movement and isolates the burn from surface pathogenic bacteria without foul odor or irritation of the burn. Further, there were thousands of articles that verified the usage of olive oil on burns. Indeed, olive oil facilitates the movements of foot joints and prevents contractures and adhesions [5].

Consequently, I reminded the girl/her family to wash the honey-olive oil mixture after one hour to allow the epithelial cells to regenerate. Henceforth, I gently encouraged the girl to walk by the burnt foot with a pain reliever.

Indeed, daily repeating of this method allowed continuous removal of the dead tissue by removing the dressing that contains a honey-olive oil mixture. Consequently, I advised the girl/her family to run tap water to ease the removal of burn dressing, which is an excellent patient experience to extract debris without pain or discomfort; I followed the burn interestingly to see the differences. Accordingly, there were rapid and marked improvements in the burn appearance, patient's movements, diminished foot swelling, pain score decrement (5/10), fever subside and return to normal, better sleeping, plus easy movements of foot joints.

Still, pain is the remnant outcome of any burn, which affect the patient from doing the usual activities, and it is the principal cause of joint contractures and burn adhesions. Hence, the benefits of olive oil are easing joint movements and preventing joint contractures and burn adhesions [6].

Ordinarily, after two weeks, there was itching in the burnt area, a familiar sequel in wounds and burns that is a normal healing process from the body's immunological responses. Therefore, I spread cactus oil twice daily with a thin bandage. Ordinarily, cactus oil moistures the skin because it soothes the cells, hydrates the burn, reduces the inflammatory process that damages the collagen, and prevents skin aging [7].

Consequently, I ordered the girl/her family to recover the olive oil OD alternatively with the cactus oil to ensure good elasticity of skin texture, prevent infection and preclude contractures and adhesions.

Indeed, because of the marked gait improvement, I stopped systemic antibiotics one week behind the burn; I lessened the frequent use of the honey/olive oil mixture and ceased it in the fourth week. Likewise, the pain score dwindled to (2/10), allowing the return of the normal functions of all foot joints in the sixth week. Accordingly, the reader sees the appearance of

the burn outcomes of the burn stages in the photos (Figure 1-4).

Indeed, I recorded this case to improve the surgical informatics in the management of burns for better healthcare advancement, to solve a surgical dilemma, open discussion with the experts about a new strategy in the local treatment of burns, and to reach a trustworthy judgment. Hence, reporting the recent technique in treatment is noticeable in promoting good patient care, updates in surgical remedies, and qualifying expert informatics.

### Conclusion

Hazim Alhiti's method for local treatment of burns by applying the honey-olive oil mixture enhances marked healing without contractures and adhesions. Adding cactus oil over the burn hydrates the burn, treating post-burn-itch and preventing ulcers. Hence, I recommend this method for local treatment of burns.

### Ethical consent

Ethical approval from the patient and his family consent without name.

### Funding

No.

### Conflict of Interest

The author declare that there is no conflict of interest.

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