

**SUCCESSFUL MANAGEMENT OF PYODERMA GANGRENOSUM (PG) BY ILAJ BI' L
'ALAQ (LEECHING)- CASE STUDY****Minhaj Ahmad***

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Article Received on 01/05/2016

Article Revised on 17/05/2016

Article Accepted on 01/06/2016

ABSTRACT

Pyoderma gangrenosum (PG) is a reactive, non-infectious, inflammatory disease of skin (dermatosis), with unknown aetiology. It is characterized by sudden onset of sterile pustules that develop very fast into very painful ulcerations with undermined edge. It affects approximately 1 person in 100,000 in the population. It can affect people mostly in their 40-50 years of age. Most of the pyoderma gangrenosum patients suffer from immune-mediated diseases. It may be due to a genetic cause as it is in families and siblings.^[1,2] Treatment of pyoderma gangrenosum ulcer is a quite challenging task to the physician in modern medicine. It is treated by systemic use of steroids and ciclosporin and topical application of clobetasol, mupirocin and gentamycin after cleaning with Dakin's solution. *Ilaj bi' l 'Alaq* (Leeching/ Hirudotherapy) in Unani system of medicine is well recommend to treat chronic non healing ulcer as mentioned in the Unani literatures of ancient Unani physicians. Keeping the Unani concept in mind, pyoderma gangrenosum ulcer was treated successfully with leech therapy along with oral Unani drugs in 3weeks duration.

KEYWORDS: Diabetic Foot Ulcer, Leech Therapy, Non healing ulcer, Qurooh-e-Aseerat-ul-Indamaal, *Ilaj bi' l 'Alaq*.**INTRODUCTION**

Pyoderma gangrenosum is a very rare inflammatory non-infectious disease of skin. also known with other terminologies like dermatitis gangrenosa, Phagedena Geometrica and phagedenic pyoderma.^[3] The disease was identified in 1930, by Brunsting, Goeckerman and O'Leary. It is characterized by recurrent cutaneous ulcerations with mucopurulent or serous exudate.^[4,5] These are very painful ulcers with undermined bluish borders with surrounding erythema. Ibn-Sina described in his book "Alqanoon -Fil-Tib" that *Ilaj bi' l 'Alaq* (Leeching) is very effective in the treatment of chronic, non-healing skin disorders^[6]

Types of pyoderma gangrenosum**Main Types**

- Typical' ulcerative form, which occurs in the legs
- Atypical' form that is more superficial and occurs in the hands and other parts of the body

Other Types

- Peristomal pyoderma gangrenosum
- Bullous pyoderma gangrenosum
- Pustulous pyoderma gangrenosum^[7]
- Vegetative pyoderma gangrenosum^[8]

The diagnosis of pyoderma gangrenosum is very difficult and challenging because of its variable clinical

presentation, there are some features which helps in the diagnosis of pyoderma gangrenosum such as histology report for exclusion of infection, pathology, personal history of inflammatory bowel disease, history of papule, pustule, rapid ulceration, clinical examination e.g. undermining tender border of ulceration, multiple ulcerations, cribriform or "wrinkled paper" scars on the site and good response with immunosuppressive medication.

Pyoderma gangrenosum has to be differentiated from skin diseases include arterial, venous diseases, vasculitis, infections, drug-induced ulceration, primary or metastatic tumours, hypertension ulcers and several inflammatory disorders.^[9]

CASE STUDY

A 42-year-old farmer visited surgery OPD, Majeedia Unani Hospital, Jamia Hamdard, New Delhi, with multiple, painful, non-healing ulcers over the foot bilateral since last three years. The lesions had started as multiple haemorrhagic bullae which was spontaneously burst leaving multiple ulcers with serosanguinous discharge. The features were consistent with those of pyoderma gangrenosum. Patients did not have any associated disease including myeloproliferative disorder. The ulcer was examined in detail (Table 1).^[10,11,12]

Ulcer Profile (Table No.1)

Characteristics	Right foot	Left foot
Site	Medial malleolus	Anterolateral aspect of foot
Numbers of wounds	Multiple	Multiple
Shape	Irregular	Irregular
Colour	Dark black	Dark black
Size	Variable	Variable
Edge	Undermined	Undermined
Floor	Covered with scab	Covered with scab
Discharge	Serous discharge from sides	Serous discharge from sides
Surroundings	Black pigmented unhealthy	Black pigmented unhealthy
Local temperature	Not raised	Not raised
Pain & Tenderness	+++	++
Base	Fixed to the deeper structure	Freely mobile
Bleeding on touch	Present	Absent
Dorsalis pedis (pulse)	Palpable	Palpable

TREATMENT PROCEDURES

After thorough examinations and investigations, treatment was started and the patient was instructed and trained to maintain personal hygiene and to take proper nutrition.

Wound was first cleaned with neem water (decoction of neem leaves) and sterile gauze piece.^[13] Unhealthy tissue, scab and slough were removed. The wound was again washed with normal saline and dried with sterile dry gauze pieces followed by honey dressing with full aseptic precaution. For the purpose of blood purification, *Majoon-e-Ushba* was given orally in a dose of 6gm. twice a day with plain water and as an immunity booster *safoof-e-Asgand (Withania Somnifera)*, 5gm was given twice a day orally with plain water. *Ilaj bi' l 'Alaq / Leeching (Hirudotherapy)* was done twice a week.^[14,15,16] Dressing was changed daily and ulcers were assessed by assessment parameters on every 7th day by clinical evaluation of the affected part.



Fig. 2. (After 7 days)



Fig. 3 (After 14 days)



Fig. 1.a (Day-0)



Fig 1.b (Day-0)



Fig.4 (After 21 days)

RESULT AND DISCUSSION

Treatment of pyoderma gangrenosum (PG) is very challenging, difficult and time taken problem for the clinicians. Leeching (Hirudotherapy) is a very effective

mode of treatment as described by Unani physicians. At the time of first visit the wound was covered with scab "Fig. 1a,1b". The treatment was started by daily cleaning with neem water (Decoction of neem leaves) and dressing with honey and betadine alternatively, and two leeches on each foot were applied near the wounds twice in a week, along with oral medication. After 7days of treatment the scab was replaced by dark and unhealthy granulation tissue. Gradually pain & discharge reduced. Surrounding area appear dry and lustreless "Fig.2". The study shows that after 14 days of treatment, healthy granulation tissue appeared showing good improvement the ulcer healed almost 90% "Fig. 3". The surrounding pigmented area also retained its normal colour. The ulcer healed completely after 3 weeks of treatment "Fig. 4".

CONCLUSION

The study revealed that *Ilaj bi' l 'Alaq / Leeching* (Hirudotherapy) is a very effective and safe mode of treatment of pyoderma gangrenosum. Further it may be a very good option to avoid the complications of prolonged systemic use of drugs, specially steroids which is recommended in modern medicine to treat pyoderma gangrenosum is dangerous for health in later stage. Hence, it is suggested that the study should be done on larger sample size in future to validate the efficacy of leech therapy in the management of pyoderma gangrenosum.

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