

FIRMST2020-AB75

# ADDITION OF PENICILLIN TO STANDARD OF CARE IN HEALING OF ULCERS IN CHRONIC VENOUS HYPERTENSION

Neeraj KUMAR; Anita DHAR

All India Institute of Medical Sciences, New Delhi, India

Correspondence to [neerajkgmc@gmail.com](mailto:neerajkgmc@gmail.com)

Poster presented at Forum for Interdisciplinary Research in Medicine, Science &amp; Technology Conference, Moscow 2020

Peer reviewed by JS Bamrah, Ananthakrishnan Raghuraman, Soumit Dasgupta &amp; Jyothi Srinivasan

Cite as: KUMAR, N., & DHAR, A. (2020) ADDITION OF PENICILLIN TO STANDARD OF CARE IN HEALING OF ULCERS IN CHRONIC VENOUS HYPERTENSION. *The Physician* vol 6; issue 3; epub 04 Aug 2020; DOI: <https://doi.org/10.38192/1.6.3.firmst20.ab75>

**Keywords**

chronic venous ulceration; Benzathine Penicillin

**Article Information**

Published 01 Oct 2020

Open Access – Creative Commons Licence CC-BY-ND-4.0

**Aim:**

To compare reduction in ulcer size, recurrence rate, pain score & improvement in quality of life (QOL) in patients receiving standard care (SoC) for chronic venous ulcer with & without concomitant treatment with Benzathine penicillin

**Objective:**

Reduction in ulcer size, recurrence rate, pain score & improvement in quality of life(QOL) in patients receiving standard care (SoC) with & without concomitant treatment with Inj. Benzathine penicillin 1.2 mega units intramuscular (IM) every 3 weekly for 6 months.

**Background:**

Chronic ulcers are one of the most difficult diseases to treat with socioeconomic impact, due to pain, recurrence & morbidity. Compression therapy with surgical & endovascular procedure is often required for management. Venous hypertension leads to oedema followed by micro lymphangiopathy & dermatolymphangio-adenitis (DLA), which is attributed to recurrence of symptoms & eventually ulcers. Role of Injection (Inj) Benzathine Penicillin has been well established in treating lymphangitis. However, its role in venous ulcers hasn't been studied before.

**Design and Methods:**

Present randomised, two-arm superiority trial was conducted among patients aged 18-70 years with pregnancy, Acute DVT, Peripheral Arterial Disease, T2DM, penicillin allergy, etc. excluded. Participants were randomly recruited into two arms. SoC included moist occlusive dressing, flavonoids, Short stretch bandages/ Stockings. SoC also included interventional treatment including Endovenous Laser Ablation/ Sclerotherapy/Sub-fascial Endoscopic Perforator Surgery/ Stripping & ligation, etc. Patients were followed up weekly for 1 month, followed by monthly for 6 months.

**Results:**

66 patients with total 103 venous ulcers, baseline characteristics of both groups were statistically similar, however, ulcers did not follow a normal distribution at presentation & there was a significant difference between mean ulcer size among the groups( $p=0.04$ ). Compared with the control arm (N=32, 49 ulcers), the study arm (N=34, 54 ulcers) was associated with a higher number of healed ulcers. Mean size of ulcers decreased in both the arms with a statistically significant difference in study arm( $p=0.03$ ). Patients of study arm had lesser no. of recurrence. Pain control was improved in both arms, with significant difference favouring study group( $p=0.001$ ). Significant difference

in various domains of QoL was noted ( $p=0.001$ ). There were decreased attacks of DLA and limb swellings in both groups. With much more improved results in the study arm ( $p=0.001$ ).

**Conclusions:**

Inj. Benzathine Penicillin administration along with SoC among chronic venous recurrent ulcers had beneficial effects on ulcer healing, QoL, recurrence, DLA & pain.

Conflict of Interest

None