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A CLINICAL STUDY ON CHRONIC VENOUS INSUFFICIENCY WITH CHRONIC NON HEALING VENOUS ULCER IN A RETROVIRAL POSITIVE PATIENT

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ABSTRACT

Venous ulcers are wounds which are the most serious and chronic complications in venous insufficiency, caused due to the inappropriate venous valves functioning and when these veins get damaged/ruptured due to any trauma, the pressure in the veins raise & cause hypertension and which in turn leads to ulcers. In this case the possible study effects were made to present the venous ulcers to the patient that was mainly due to trauma. Varicose veins with venous ulcer & the surrounding tissues gets exposed with microbial infection on the surface of the foot was treated with several antibiotics, debridement & dressings. The infection reduces due to antibiotic therapy & certain dressing on the wound without any exposure, resulting in fast healing of the wound.

Keywords: Varicose veins, Debridement, Amputation, Clinical Study

INTRODUCTION

Trauma to the surface of the skin & underlying varicose veins are the major cause for venous ulcers. Venous ulcers are wounds that occur mainly to the legs due to inappropriate functioning of venous veins **[1]**. These venous valves get damaged or

ruptured due to trauma and this may leads to the prevention of backflow of blood, causing hypertension due to pressure rise **[2]**.

Venous ulcers would not heal without any cleaning, regular dressings & continuous treatment, or else they usually spread quickly. The surgical & hydrosurgical debridement are indicated in large necrotic & infected wounds as this treatment was preferred to reduce the time of healing. Proper care should be taken for the patients who require the patients', physicians' and wound care specialists' cooperation **[3]**. Increase in venous pressure is also responsible for the signs & symptoms which are commonly associated with chronic venous disease **[4, 5]**. This may lead to long-term hospitalization & may risk amputation, if the infection aggressively progresses.We are reporting that venous ulcers in a patient who received initial antibiotic therapy successfully, debridement & dressings in spite of his immunosuppressive status. The patient was discharged 1 month after admission.

CASE REPORT

A 39yr old male patient with varicose veins and an ulcer of size 8x6 cm in the right foot presented himself in the outpatient department on 15th December 2020. The patient was also a retroviral positive patient on anti-retroviral therapy for the past 2 yrs. The patient was admitted to the general surgery ward for wound care. The exudates were sent to wound swab culture and sensitivity test. It reported with positive growth for streptococcus aureus. The large necrotic & infected sites on the surface of the wound were debrimented. The treatment followed for this patient with IV antibiotics susceptible to the organism from wound swab test and daily cleaning and dressing. It showed a significant improvement in the wound healing process. Venous doppler of that particular limb also showed perforator incompetence in the right leg mostly in the lateral and anterior aspect of the right leg **[6]**. Since the patient was a known retro viral positive patient on anti-retroviral therapy, proper handling care were also upheld. The initial antibiotic therapy followed for 3 weeks for this patient due to the infection of microorganism and the low immunity of the patient. A good progress was achieved within a short duration of time which was also supported with providing a high protein rich diet to the patient. At the end of 2nd week intravenous antibiotics were discontinued and changed to oral form. Since in varicose ulcers in venous veins the wound healing is a time taking process, it was overcome by

initial antibiotic therapy & skin debrimentation process.

On the 4th week, split skin graft was planned and the same was done successfully under spinal anesthesia without any complications. Patient recovered post operatively without any problem. An emergency OT was undertaken on post op day 3 due to soakage on the recipient site, graft uptake was 95%. Dressing was done again and the same was removed on day 7. With exceptional uptake on the graft, procedure was a success. Mercurochrome was applied on the edges of the graft and liquid paraffin over the graft itself on alternate days for three sessions. By post op day 11 the graft uptake was 95% and wound healthy with minimal to no serous discharge with no microbial growth.

DISCUSSION

Venous ulcers are the wounds that are mainly due to the improper functioning of venous valves & it is caused mostly due to the trauma. It is mainly associated with the varicose veins, a collection of small dark engorged superficial veins **[6]**. The ulceration mainly depends on pathophysiological abnormalities, anatomical changes & environmental influences.In this study we observed increased blood pressure that is caused by the venous ulcer, where venous valves exist to prevent the backflow of blood and raise the pressure in veins **[7-10],** where the other diseased conditions including immunosuppressive status also be the root cause for non-healing ulcer **[9]**. The immunodeficient status of the patient was also against fast healing process for the ulcer. The large necrotic infected sites on the surface of the right leg were debrimented and the initial antibiotic therapy was provided for the extensive wound healing. In our study we used supportive antibiotics in combination with antiretroviral therapy given as treatment for infection. Sliver containing dressing was provided without any exposure to the contaminants where it increases the probability of healing for venous leg ulcers **[11]** with this combination completely cured the site of infection within 1month of the follow up of the study.

In this case the major effort were made to reduce the chance of amputation of the limb by antibiotic therapy for the leg ulcer as The National Institute for Health and Care Excellence recommends any ulcer not healed within 2 weeks or anyone with a healed leg ulcer **[12]**. In this case the venous ulcer was below the epidermal layer, hence treated with initial Antibiotic therapy to boost up/accelerate the healing process and to count the infection with skin debrimentation followed by split skin graft placement.

CONCLUSION

In this clinical study it was proved that safety & efficacy of the antibiotics sensitive to the microbes in the wound, debridement therapy alongside supportive diet played a role to get the wound ready for surgery in a short span of time. The span of healing also was dependent on the size and depth of the infection & efficacy of the treatment followed. The surgery was also a success with a graft uptake of 95% and the results confirmed that the patient got cured by the treatment which was conducted in our medical college hospital.

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