

**SIDDHA INTERVENTION IN THE MANAGEMENT OF MADHUMEGA VIRANAM
(DIABETIC FOOT ULCER) – CASE REPORT**Guptaj S.^{1*}, Sabari Girija N.², Sinekha M.A.², Sakthimanipriya L.² and Parameswari A.³¹Resident Medical Officer, Sri Sairam Siddha Medical College and Research Centre, West Tambaram, Chennai.²PG Scholar, National Institute of Siddha, Tambaram Sanatorium, Chennai.³PG scholar, Government Siddha Medical College, Arumbakkam, Chennai.***Corresponding Author: Dr. Gupta S.**

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ABSTRACT

Diabetic foot is one of the major complications of Diabetes mellitus. Diabetic foot is considered as a major source of morbidity and a leading cause of hospitalization in patients with diabetes. once DFU has developed, there is an increased risk of ulcer progression that may ultimately lead to amputation. In Siddha system of medicine, Diabetic ulcer is correlated to 'Madumega pun'. Navakkiraga vellai and purai oil have an indication for viranam. Hence this study was conducted to evaluate the efficacy of this medicine. A 63-year-old man has been treated with the above-mentioned medicines. He had the complaints of chronic diabetic foot ulcer in his left lateral foot with the complaints of foul odour, pus discharge from the ulcer, swelling in the peri-wound area, Pain, altered gait along with gangrene. He got a better improvement in his ulcer after a month of treatment. Summing up, Siddha medicine can potentially heal or reduce the size of the diabetic foot ulcer at a low cost.

KEYWORDS: Madhumeega viranam, diabetic foot ulcer, case report, Siddha, purai oil.**INTRODUCTION**

Diabetes mellitus refers to a group of common metabolic disorders that share the phenotype of hyperglycaemia. Several distinct types of DM are caused by a complex interaction of genetics and environmental factors. Depending on the aetiology of the DM, factors contributing to hyperglycaemia include reduced insulin secretion, decreased glucose utilisation and increased glucose production. Diabetes mellitus is the leading cause of end-stage renal disease, nontraumatic lower-extremity amputations, adult blindness and cardiovascular disorders. The worldwide prevalence of DM has risen dramatically over the past two decades, from an estimated 30 million cases in 1985 to 382 million in 2013. Based on current trends, the International diabetes federation projects that 592 million individuals will have diabetes by the year 2035.^[1]

Diabetic foot is one of the major complications of Diabetes mellitus. It affects nearly 6% of people with diabetes^[2] and includes infection, ulceration, or destruction of tissues of the foot.^[3] It can impair patients' quality of life and affect social participation and livelihood.^[4] Between 0.03% and 1.5% of patients with diabetic foot require an amputation.^[5] Diabetic foot is considered as a major source of morbidity and a leading cause of hospitalization in patients with diabetes.^[6] once Diabetic ulcer has developed, there is an increased risk of ulcer progression that may ultimately lead to

amputation. It is estimated that approximately 50% -70% of all lower-limb amputations are due to Diabetic ulcer.^[7] Also, it is reported that every 30 s one leg is amputated due to Diabetic ulcer in worldwide.^[8]

Siddha system is the traditional system of medicine widely practised in the southern part of India. This system has its principles, but it is incorporating new theories and drugs in it and is presenting them according to its principles. A diabetic ulcer is correlated to 'Madumega pun' in Siddha system of medicine. According to the Siddha fundamental theory, wounds are classified into 16 types; these types are comprised in the 3 major divisions that are Vali Viranam, Azhal Viranam and Iya Viranam. Vali and Azhal category of the wound is treated with oil-based (Thailam) medicines and Iya category of wounds are treated with oil (Thailam) or powder-based (Chooranam/Parpam) medicines.^[9] Wounds /ulcers of the diabetic patient are cured with difficulty. Even with the latest technology and modern medicine in hand, highly trained medical team around, yet the majority of the diabetic ulcers end up with more or less amputation of the concerned major or minor part of the lower limb.^[10] But through the Siddha system of medicine, wound care treatment in unique and variety of internal and external therapies available to cure. In this study, the case was treated with Navakkiraga vellai (internal medicine) which has the indication for skin diseases^[11] and Puraiennai (external medicine) given for

the treatment of Madhumeaga viranam. Hence, in light of the above reference from literature, this case was treated with both medicines.

Declaration of patient consent

The authors certify that they have obtained all appropriate written informed consent from the patients for the publication of this case report and accompanying images.

PATIENT INFORMATION

A 63-year-old man with the complaints of the chronic diabetic wound in his left lateral foot with the complaints of foul odour, pus discharge from the ulcer, swelling in the peri-wound area, Pain, altered gait along with gangrene. It was started as a mild wound before 2 years. Then the ulcer developed as a deep wound with necrotic tissues within the month and affects the quality of life because of without proper treatment. The patient went to conventional treatment and there was no improvement in the patient condition even after taken 1 year of treatment. Due to insignificant relief of the therapy, doctors decided for amputation of the foot. So, he visited the Siddha hospital for further management. He had a history of 20 years of Diabetes mellitus with poor control.

Therapeutic regimen and follow – up

The initial measurement of the wound was 18cm length × 3cm width × 1.5cm depth. According to the Siddha system, purgative is the initial procedure to neutralize the Mukkutram (Three humours in Siddha). The patient was prescribed oral administration of Agasthiyar Kuzhambu - 200 mg with ginger juice for the mild Purgative on the early morning of the third day. The patient was treated with Navakkiraga vellai internally for 3 days twice a day with hot water and purai oil for external application along with anti-diabetic medications as per the suggestion of a modern physician. He was instructed to avoid salt, oil, tamarind-based foods and encouraged to eat milk rice and porridge for three days. This diet restriction advised being continued for 7 days along with the 3 days medication. He was instructed to clean and dress the wound every day before the application of purai ennai. This treatment process has taken a month to get a good prognosis. The severity of the ulcer was measured by the DUSS (Diabetic Ulcer Severity Score)^[12], In the DUSS assessment, the patient has probing to the bone, foot ulcer numbered in multiple, he scored about 3 out of 4.

RESULTS

The patient was following the medication after the purgation therapy followed the therapeutic rest. The initial stage of the ulcer has shown in figure 1. On 4th day he had taken the medication for a diabetic ulcer. A foul odour and pus discharge in the wound become reduced gradually and stopped within three days. Swelling in the Peri-wound area was reduced at that time. Minimal pain was present around the wound area. On 15th day, Depth was reduced with granulation tissues developed on the

ulcer (Figure 2). pain in the peri-wound area was reduced and better improvement in his gait. Depth of the wound was closed. On 33rd day, Necrotic tissues were completely disappeared and granulation tissues were covered the wound area. (Figure 3). During the follow-up period, no recurrence was observed in the 2 months of follow up. No adverse drug reaction was noticed during treatment and follow up period. In the DUSS assessment, the grade of the ulcer became 0.



Figure 1: On 1st day of treatment.



Figure 2: On 15th day of treatment.



Figure 3: On 30th day of treatment.

DISCUSSION

Wound management has been described in traditional Siddha literature. In Siddha, Ulcer present in arteries and in between the muscle fibres is referred to as 'Silaipun'. In the current report, the patient had been treated for a chronic skin wound with antibiotics and other conventional medicine therapies on and off for one year before his presentation. he reported no improvements from those treatments and they suggested to amputate his leg. By integrating conventional treatment with Siddha therapeutics, wound healing was achieved by us within four weeks. Ingredients in the Navakkiraga vellai and purai oil possess the wound healing activity. In siddha system, lot of therapeutic oils used in the treatment of wound healing. Sesame oil in the therapeutic oils possesses the wound healing property. Studies done on sesame oil extract proves a beneficial role in wound healing. Its wound healing properties may be due to free radical scavenging capacity and antioxidant activity.^[13]

CONCLUSION

Summing up, Siddha medicine can potentially heal or reduce the size of the diabetic foot ulcer. They could have a massive impact in reducing infection rates, amputations, plastic surgeries and improving the overall quality of life and lower the economic burden in treating diabetic ulcer. The most significant result from this case study is the management of Diabetic complications, short span recovery at low cost. Interventional studies should be conducted to better understand the effectiveness of this integrative approach for the treatment of chronic wounds.

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