



## RESEARCH ARTICLE

## VALMIK [MADURA FOOT,MYCETOMA,ACTINOMYCOSIS] – A CASE STUDY.

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**Introduction:-**

VALMIK is described as Twak vikar [skin disease] It is classified in Kshudra vyadhi [Minor condition]. Valmik literally means swelling resembling. It is also known as Utsangi vrana [sebaceous adenoma]. According to Acharya Sushrut and other acharyas, in this condition there is threedosh dushti. As symptomatology is similar, Valmik can be correlated as a Madura foot.

Mycetoma is a chronic granulomatous fungal disease of humans, affecting mainly the limbs, and sometimes the abdominal and chest walls or the head. Mycetoma pedis (mycetoma of the foot), the most common form of mycetoma, is known widely as the **Madura foot**. The infection is endemic in Africa, India and the Central and South Americas. Mycetoma may be caused by bacteria from the phylum Actinomycetes, or by fungi (Eumycetes) where it is called Eumycetoma. Bacterial and fungal species that can cause mycetoma are listed below under their characteristic colours of discharge from infected wounds. Madura foot or maduromycosis or maduramycosis, is described in ancient writings of India as Padavalmika, which, translated means Foot anthill. The first modern description of Madura foot was made in 1842 from Madurai (the city after which the disease was named Maduramycosis) in India, by Gill. The fungal etiology of the disease was established in 1860 by Carter.

The disease is usually seen in field workers like farmers, and generally affects men between 20 and 40 years. The disease is acquired by inoculation of grains of fungal spores from the soil through a breach in the skin produced by minor trauma like a thorn prick. The disease then spreads to deeper tissues and also forms sinus tracts leading to skin

surface. Mature lesions are characterised by a grainy discharge from these sinuses. These discharges contain fungal colonies and are infective. Spread of infection internally through blood or lymph is uncommon.

Infections that produce a black discharge mainly spread subcutaneously. In the red and yellow varieties deep spread occurs early, infiltrating muscles and bones but sparing nerves and tendons, which are highly resistant to the invasion.

Diagnosis of mycetoma is usually established clinically in endemic areas. X rays and ultrasonography may be employed in evaluating the extent of the disease. X rays findings are extremely variable. The disease is most often observed at an advanced stage that exhibits extensive destruction of all bones of the foot. Rarely, a single lesion may be seen in the tibia where the picture is identical with chronic osteomyelitis. Cytology of fine needle aspirate or pus from the lesion, and tissue biopsy may be undertaken sometimes. MRI - Some publications have stated a "dot in a circle sign" as a characteristic MRI feature for this condition (this feature has also been described on ultrasound).

#### **Treatment:-**

Drugs like ketoconazole, voriconazole and itraconazole are generally employed in treating the infection. Actinomycetes usually respond well to medical treatment, but the eumycetes are generally resistant and may require surgical interventions including amputation.

#### **Ayurved treatment:-**

In Indian system of medicine, there are multiple lines of treatment to be advised according to clinical stage.

- ❖ Conservative line- application of herbal paste containing kulith, gulwel, lavan, dantimul, saatu -nimba tail application
- ❖ Parasurgical therapy- kshar application [chemical cauterisation] and agnikarma [thermal cauterisation]
- ❖ Panchkarma- in acute and uncomplicated cases raktamokshan [blood letting]
- ❖ Surgical modalities- chedan and bhedan [incision & drainage] followed by shodhan & ropan.

#### **Case report:-**

A 65 Years old male, farmer by occupation, of kapha pitta prakriti brought to us with complaining of gross swelling, ulcer and multiple over left foot, mild pain, serous discharge, low grade fever since six months. Also the patient had history of migration from Uttarakhand State.

General Examination - general condition moderate, thin built, malnourished, conscious, oriented, cooperative, anxious, febrile, tachycardia, vitals normal.

#### **Systemic examination normal:-**

**Local examination:-** gross odema involving whole foot extending lower 1/3 tibia, multiple openings discharging mixed discharge with blackish granules, overlying skin blackish and wrinkled, mild tenderness, raised local temp.

Routine investigations were within normal units except mild leucocytosis and raised ESR.

The patient was admitted in male surgical ward for further management.

He was treated with

- ❖ vranakarma- shodhan and ropan [cleaning & dressing] twice a day,
- ❖ Arogyavardhini, Gandhak rasayan and kaishor guggul, 1 tab each orally twice a day after each meal, Mahamanjishtyadi qwath 10 ml with equal quantity of leukwarm water after each meal,
- ❖ Raktamokshan [blood letting] by leech application daily,
- ❖ leg elevation,
- ❖ Bed rest.

Supportively, the patient was also given – 1. Oral penicillin [tab. pentid 400 IU ] 1 qid, 2. Tab. Chymoral forte 1 bd, 3. Tab. Fusys [fluconazole] 150 mg 1 bd, 4. Cap. A to Z 1 OD, 5. Protinex powder 2 tsf bd with milk.

After two weeks, we got encouraging results, hence the treatment was continued for again two weeks. By the end of fourth week, the condition was recovered completely, then also we continued treatment for two weeks. Here we had almost complete cure. The patient was monitored daily in terms of symptoms & signs, local exam, vranaparikshan [wound exam].

**Discussion:-**

Mycetoma pedis is chronic infective complex condition with both discomfort & embarrassment to the patient, sometimes social stigma.

Today's strategies in the management of Madura foot is Incision & Drainage, debridement and healing by secondary healing along with symptomatic treatment. If this fails then finally amputation can be considered. But there is no complete cure, and many times leaves with certain complications. If we consider Ayurved approach, definitely, there are better outcomes. As the condition affects skin with kapha & pitta dushti, Raktamokshan [leech application], Chedan [debridement/fasciotomy] and Vranakarma [shodan & ropan] along with certain appropriate ayurvedic drugs orally give very satisfactory results without complications. It is better to have supportive modern treatment.

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