

# CASE REPORT

## UNUSUAL DEEP MYCOSES\*

By

C. BHAKTAVIZIAM\*\* R. MATHAI,\*\* A. MAMMEN\*\*

Mycotic infections of man may be broadly divided into superficial and deep. The true incidence of various deep mycoses in our country is not known even though they are not infrequently seen all over the country. Deep mycoses are either localised or systemic. Among the localised variety, maduromycosis is one of the commonest. Systemic mycoses are rare. Of these, cryptococcosis has been occasionally reported from our country. Cryptococcus infection, confined only to the skin and subcutaneous tissue is an uncommon occurrence.

Maduromycosis is an exogenous infection caused by a variety of saprophytes found in the soil or on plants. It occurs usually at the site of trauma.

Cryptococcus infection in man is caused by cryptococcus neoformans, widely distributed in nature. Soil, fruit juice and milk are considered to be the common sources of infection. The disease is usually associated with chronic debilitating illness.

In this paper, we are presenting a case each of maduromycosis and cryptococcosis, both with certain unusual features.

CASE NO. 1—A 55 year old female from a well-to-do family, presented with skin lesion of 15 years duration. It started on the back as a small erythematous papule and very gradually spread with the appearance of several similar lesions. Frequently lesions discharged but, leaving sinuses. The only symptoms were itching and burning.

### PHYSICAL EXAMINATION

Patient's general condition was good. Systemic examination did not reveal any abnormality. Her skin lesion covered an area 6"-8" on the upper part of the mid back and consisted of multiple nodules, abscesses and sinuses. The nodules and abscesses were 5-10 mm. in size (fig. 1). The whole area of skin felt markedly indurated, but not fixed to deeper structures.

A clinical diagnosis of mycetoma was made.

### INVESTIGATIONS

One of the abscesses was incised. The pus which was expressed contained white granules. Microscopically these showed broad hyphae in the centre and large chlamydo spores at the periphery.

---

\*Read at the XXIII Joint Annual Conference of Association of Physicians of India.

\*\*Dept. of Dermatology, Christian Medical College Hospital, VELLURE, (South India).

Received for publication on 5-4-1969.

Histological examination of an unopened nodule showed a well localised abscess in the dermis. It contained many epithelioid cells, foreign body giant cells, large eosinophilic masses with chlamydo spores on the periphery (fig. 2).

Culture of the granules grew monosporium apiosporum (imperfect form of *Allescheria Boydii*).

X-ray of the back showed no abnormality.

CASE NO. 2—A 34 year old male patient with lepromatous leprosy was referred to the Department of Dermatology for investigation of chronic ulcers.

#### PAST HISTORY

In childhood, the patient suffered an injury on his right leg. After a few months, he developed a chronic discharging sinus at the injured site, which subsequently healed. About the age of 15, he was diagnosed as a case of lepromatous leprosy. Few months prior to his admission to our hospital he started to develop erythema nodosum leprosum and was admitted to a leprosarium for the management of the E. N. L.

When patient was first seen in the leprosarium, he had an abscess over the right tibia. This was incised and drained. Two weeks later, a fluctuant swelling was noticed on the low back. This was also incised and drained. Incision wounds did heal, but developed into large linear ulcers. Since these ulcers did not respond to usual forms of treatment, the patient was referred to us.

#### PHYSICAL EXAMINATION

Patient looked ill and was emaciated. General systemic examination did not show any significant positive finding. The skin showed gross lepromatous infiltration. Anesthesia was present below elbows and knees. There was no involvement of the motor system.

On the right leg were seen two large linear ulcers with unhealthy granulomatous base and clear cut borders (fig. 3). Slimy pus covered the base of the ulcers. One of the ulcers was very deep, extending to the tibia. There was one granulomatous ulcer above the right iliac crest.

Patient was running fever ranging between 100°F and 102°F.

#### INVESTIGATIONS

Direct smear of pus from the ulcers showed many budding spores with thick capsules suggestive of cryptococci (fig. 4).

Culture and animal inoculation proved this to be *Cryptococcus neoformans*.

Biopsy from the ulcer on the back showed multiple macrophages containing large numbers of cryptococci (fig. 5).

X-ray of right leg revealed extensive destruction of the upper two thirds of the tibia. This was reported as consistent with either cystic tuberculosis or cryptococcal infection of the bone (fig. 6).

X-ray of the right foot showed osteoporosis of bones and destruction of tarsal bones suggestive of tuberculosis (fig. 7)

X-ray chest showed opacities in the upper zones. There were also multiple cavities in the left mid and upper zones (Fig. 8).

X-ray of the right hip joint also showed tuberculosis.

Bronchial washings and gastric juice were positive for A. F. B. Guinea pig inoculation confirmed this to be tubercle bacilli.

C. S. F. was normal.

Cryptococci could not be demonstrated from any tissue other than the ulcers.

Patient was put on anti-tuberculous treatment. Within 5 days he was afebrile and remained so until he was discharged from hospital. He was sent back to his leprosarium with a diagnosis of cryptococcosis of skin with lepromatous leprosy and tuberculosis of lung, bones and joint.

He was recommended to continue anti-tuberculous and anti-leprosy treatment and to have a course of Amphotericin B.

10 days after discharge from our hospital, patient's general condition deteriorated and the ulcers on the leg spread upwards. An above knee amputation was done to stop further spread of the ulcer. At the same time, ulcer on the back was also excised.

4 months later while in the leprosarium, an ulcer was again detected on the back. Suspecting this to be a recurrence of the fungus infection, it was excised. Another ulcer which appeared in the region of the amputation stump was also excised 6 weeks later. Patient was discharged from the leprosarium after about five months, in good general condition with no ulcers and an above knee prosthesis. Patient has since been regularly attending the leprosarium for the antituberculous and anti-leprosy treatment.

The latest report regarding patient's progress reveals that his pulmonary tuberculosis has responded well to treatment. Skin smears for A.F.B. also showed improvement in the bacteriologic index.

#### COMMENT

✓ Maduromycosis is one of the common deep mycoses encountered in our clinic. Our case showed an unusual site of involvement. In most series including those of Conant, a distribution on the trunk has been variably reported as 2-8%. This is the first case in our clinic showing this unusual distribution.

Maduromycosis is generally accepted as occurring in parts of body which come frequently in contact with soil. In our patient, it is difficult to explain the occurrence of the infection on the back, considering her socio-economic background.

Cryptococcosis occurring in association with chronic systemic conditions is well known. Our patient was suffering from generalised tuberculosis and lepromatous

leprosy, when the cryptococcal infection was detected. Cryptococci were demonstrated from the skin lesions on the back and leg. Since the fungus could not be recovered from any other part of the body, it is possible to assume that the infection was exogenous and confined to the skin. Follow-up-to-date has not shown any evidence of further cryptococcal infection.

It is to be emphasised that the debility caused by generalised tuberculosis and lepromatous leprosy has made this patient susceptible to the cryptococcal infection. Since the cryptococcal infection was confined to the skin, local excision proved efficacious treatment. ✓

It is difficult to conceive of a systemic invasion by cryptococci since the only foci, where the fungi were demonstrated, were the two areas on the skin.

#### LEGENDS (See Photo Section)

- Fig. 1 : Upper back showing nodules, abscesses and sinuses.  
 Fig. 2 : H.E. section showing the fungus granule as eosinophilic mass in abscess cavity in dermis.  
 Fig. 3 : Linear ulcers on the leg showing clear margins and slimy pus covering base of the ulcers.  
 Fig. 4 : Direct smear from the ulcers prepared with India ink showing budding spores with thick capsules.  
 Fig. 5 : Histopathology of the ulcer showing the fungi in large monocytes.  
 Fig. 6 : X-ray tibia showing cavitation due to bone destruction.  
 Fig. 7 : X-ray foot showing destructive changes of the tarsal and metatarsal bones.  
 Fig. 8 : X-ray chest showing infiltration and cavitation.

### "PLACENTA EXTRACT"

**Albert David**

**A Broad - spectrum Biogenic Stimulant  
 FILATOVS TISSUE THERAPY**

*Indications:* Lupus erythromatosus. Tubercular ulcer, trophic ulcer, scleremia, psoriasis Sclerosis (fibrous), Eczema, Varicose ulcer, Inflammation of peripheral nervous system, Duodenal ulcer Inflammatory gynaecological diseases, decreased mobility of joints, etc.

*Contraindications:* Serious Impairment of cardio-vascular system. Serious kidney diseases, fresh cerebral haemorrhage and later stage of pregnancy.

*Packing:* 1 ml. & 2 ml. Injectable Ampules.

**ALBERT DAVID LTD.  
 BOMBAY-5.**