

5–10 min produced satisfactory anaesthesia for the cauterization of condylomata in more than 90% of patients. The analgesic efficacy decreased gradually with application times of 15 min or longer. In the case of insufficient anaesthesia, a further application of EMLA enabled the operations to be completed in most patients. The painless administration of the cream was appreciated by those patients who had earlier been given an injection of local anaesthetics. The method is also practical in clinical use, especially in the common situation where multiple warts are present.

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Cutaneous Cryptococcosis Resembling Molluscum Contagiosum: A First Manifestation of AIDS

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A 30-year-old homosexual man developed multiple skin umbilicated lesions resembling molluscum contagiosum. Initially the lesions were on his face but they rapidly spread. Histopathology and mycologic cultures of a skin biopsy revealed *Cryptococcus neoformans* which was also identified in cerebrospinal fluid and in bronchoalveolar washings. The patient had fever, weight loss, generalized lymph node enlargement, depletion of the T helper subpopulation and positive HIV-1 serology. During treatment with flucytosine and amphotericin B, the skin lesions regressed in 3 months (*Cryptococcus neoformans* disappeared in the cerebrospinal fluid and skin within one and five weeks, respectively). Our case demonstrates that molluscum contagiosum-like skin manifestations may be caused by cryptococcal infections. So it is necessary to perform skin biopsy in HIV seropositive patients with skin lesions resembling molluscum contagiosum, to diagnose mycotic infections, and especially cryptococcosis. Cutaneous cryptococcosis was, in this case, the first symptom of AIDS.

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Cutaneous lesions, in particular fungus infections, are frequently observed in the acquired immunodeficiency syndrome (AIDS). We report a case of *Cryptococcus neoformans* (CN) cutaneous infection of an atypical presentation, which was the first manifestation of AIDS.

CASE REPORT

A 30-year-old homosexual male was hospitalized for multiple skin lesions (Fig. 1), fever and weight loss. A month earlier, he had first consulted due to the appearance of facial skin lesions. At that time, he had three facial lesions which spread on the trunk and which involved the trunk and extremities



Fig. 1. Skin umbilicated lesions of the face.

over the following two weeks. They appeared as round, mostly small lesions (2–3 mm) and a few were umbilicated; others were larger (1 cm) and scabby or necrotic. The lesions suggested molluscum contagiosum but their widespread appearance in a homosexual white male, prompted further investigations.

Laboratory testing revealed $3.5 \cdot 10^9/l$ white blood cells, of which 29% were lymphocytes. Erythrocyte sedimentation rate was 36 mm. HIV serology confirmed by Western blot was positive. The T helper cell sub-population (OKT 4) was $0.044 \cdot 10^9/l$. Delayed hypersensitivity testing of tetanus, streptococcus, candida, proteus, diphtheria, tuberculosis and trichophyton were negative. The patient had lost five kg over the last two months. He had a temperature of 38°C and generalized lymphadenopathy. The large cutaneous lesions suggested fungal infection rather than molluscum contagiosum. Skin biopsy was performed. The presence of encapsulated yeast 4 to 7 μm in diameter, composed of spherulae surrounded by thick carmin-stained mucine capsules, was found in the sections; there was no inflammatory reaction.

Culture identified them as CN. The patient developed meningeal symptoms and the same encapsulated yeast was found in the cerebrospinal fluid (CSF); CN was again confirmed by cultures. CSF analysis revealed the following: protein concentration at 0.35 g/l, glucose concentration at 3 mmol/l, 3 leukocytes and 390 red blood cells/ml.

Circulating CN antigen in CSF, as detected by using latex particle agglutination, showed that it was positive, being greater than 1/128, and in the blood the result was greater than 1/1 024. Broncho-alveolar washings revealed CN in spite of a normal chest X-ray.

The patient was treated by Flucytosine 140 mg/kg/day per os for 3 weeks and Amphotericine B 1.2 mg/kg/every day by intravenous perfusion for one month. This treatment was followed by amphotericine B 1.2 mg/kg/once a week until the patient died. Within two weeks the meningeal syndrome disappeared and cutaneous lesions decreased over a period of three months. Following treatment, CSF cultures were sterile after five weeks. Circulating CN antigen level in blood and CSF diminished to 1/20 and 1/4, respectively, within two months. However, other symptoms developed, namely pneumocystis carinii pneumonia, and cytomegalovirus oesophagitis. The patient died one month after the resolution of this cryptococcosis. At that time, numerous enlarged lymph nodes and splenomegaly had developed.

COMMENTS

Cutaneous infections are frequent in AIDS patients. They are usually non-specific to AIDS but may be present in atypical or exaggerated form because of the underlying immunosuppression. Cutaneous cryptococcosis and molluscum contagiosum have been reported in AIDS patients; these are not the most frequent cutaneous infections but both appeared often as atypical features (1).

Molluscum contagiosum is a cutaneous infection due to pox virus. There are characterized by discrete flesh-coloured dome-shaped umbilicated papules. It is now well-known that molluscum contagiosum presents a florid clinical picture in HIV disease (2, 3). But other skin infections may appear as these kinds of umbilicated papules, particularly fungal infections (histoplasma capsulatum, cryptococcus neoformans) (4, 5). In our case, the lesions first evoked molluscum contagiosum because they were translucent papules and many of them are umbilicated. But the larger lesions suggested a fungal infection and we performed a skin biopsy for examination of india-ink preparation and culture. Since cryptococcal infection is common in AIDS patients (6), it is important to highlight that cutaneous cryptococcosis is an important differential diagnosis for molluscum contagiosum in AIDS patients.

Cryptococcosis is frequent in AIDS. Out of 396 AIDS cases, Zuger et al. reported 34 cryptococcal infections (6). Among 26 of these cases, he noted 22 cerebral or meningeal infections. The incidence of cutaneous cryptococcosis seems controversial: Zuger et al. (6) found none while Borton & Wintroub (7) found it in 10 to 15% of their cases.

In his epidemiologic study of cryptococcosis in France (8), Dupont came across 49 cases, 23 of which occurred during AIDS; he noted a cerebral or meningeal infection in 91% of cases, a pleuro-pulmonary infection in 38% of cases, and a cutaneous infection in 8%. Types of skin lesions caused by cryptococcus neoformans in the course of AIDS are quite variable. The yeast is often disseminated and particularly located on the head and neck, but may be found on the entire skin surface (7). The lesions may consist of papules, pustules, acneiform lesions, bullae, subcutaneous abscesses, vegetating plaques or purpura. Rico & Penneys (5) reported lesions resembling molluscum contagiosum, as was our case. Sometimes a single lesion is noticed, becomes herpetiform with vesiculation, and later develops into a destructive ulceration (6).

Cutaneous infection due to CN is always associated with systemic involvement in AIDS. Therefore, CN must be searched for in CSF, serum and urine (6). In our observation, cryptococcal infection was disseminated (CN was found in CSF, in the broncho-alveolar washings, and circulating antigen was found in the serum), although one month before the patient had been admitted to hospital he showed no signs of men-

ingeal involvement. In order to carry out treatment, early diagnosis is necessary to avoid important dissemination occurring.

Cryptococcosis is often treated by combination of Flucytosine and Amphotericin B. It is judged to be efficient if culture results develop negatively and cryptococcal antigen level in the CSF decreases rapidly. This was obtained within two months in our patient.

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