dummy study. J Am Acad Dermatol 2002;47:73-76.
4. Gupta M, Sharma NL, Kanga AK, Mahajan VK, Tegta GR. Onychomycosis: clinico-mycologic study of 130 patients from Himachal Pradesh, India. Indian J Dermatol Venereol Leprol 2007;73:389-392.
5. Hay RJ, Baran R, Moore MK, Wilkinson JD. Candida onychomycosis--an evaluation of the role of Candida species in nail disease. Br J Dermatol 1988;118:47-58.

http://dx.doi.org/10.5021/ad.2014.26.2.273

Disseminated Cryptococcosis with Widespread Necrotizing Fasciitis and Cryptococcemia Occurring in an Immunosuppressed Patient

Feng Li, Hong-Ming Yang, Hong-Wei Wang

Department of Burns and Plastic Surgery, the First Affiliated Hospital of the General Hospital of People's Liberation Army of China, Beijing, China

Dear Editor:

Cryptococcosis is an unusual opportunistic infection, and is characterized by a high mortality rate, especially among those with cryptococcaemia[1]. Cryptococcal skin lesions are often polymorphous in appearance. However, widespread cutaneous lesions and necrotizing fasciitis (NF) have rarely been reported. Here, we present a case of disseminated cryptococcosis with widespread cutaneous lesions, NF and cryptococcemia, occurring in an immunosuppressed patient.

A 41-year-old woman was transferred to our hospital, with a history of skin necrosis on the right lower limb and high fever for 17 days, and erythemas, indurations, and abscesses on the other three limbs for 14 days. She was diagnosed as NF in another hospital, and treated with meropenem empirically, but without noticeable effect. She suffered from chronic glomerulonephritis, chronic renal insufficiency, and was receiving maintenance immunosuppressive therapy with prednisone (30 mg/d).

On examination, black necrotic skin, bare subcutaneous tissue and multiple abscesses, mainly situated on the right leg, were the most obvious clinical manifestation (Fig. 1). Multiple erythemas, indurations and abscesses could be found on the other three limbs. Chest x-ray demonstrated

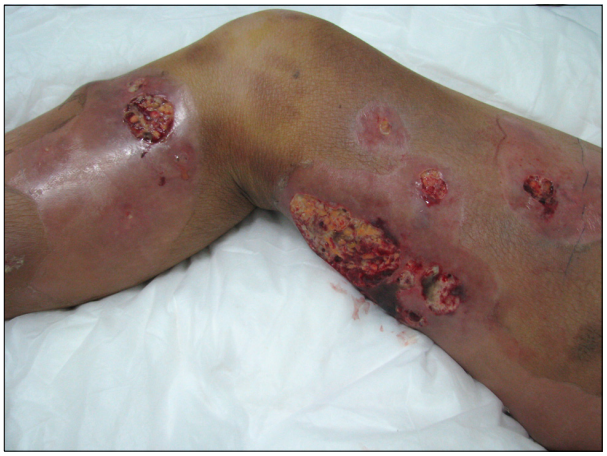

Fig. 1. Black necrotic skin, bare subcutaneous tissue and multiple abscesses on right leg.

Received January 7, 2013, Revised April 25, 2013, Accepted for publication May 10, 2013

Corresponding author: Feng Li, Department of Burns and Plastic Surgery, the First Hospital Affiliated to the People's Liberation Army General Hospital, 51 Fu Cheng Road, Beijing 100048, China. Tel: 86-13683518679, Fax: 86-1068989181, E-mail: lifeng5586@163.com

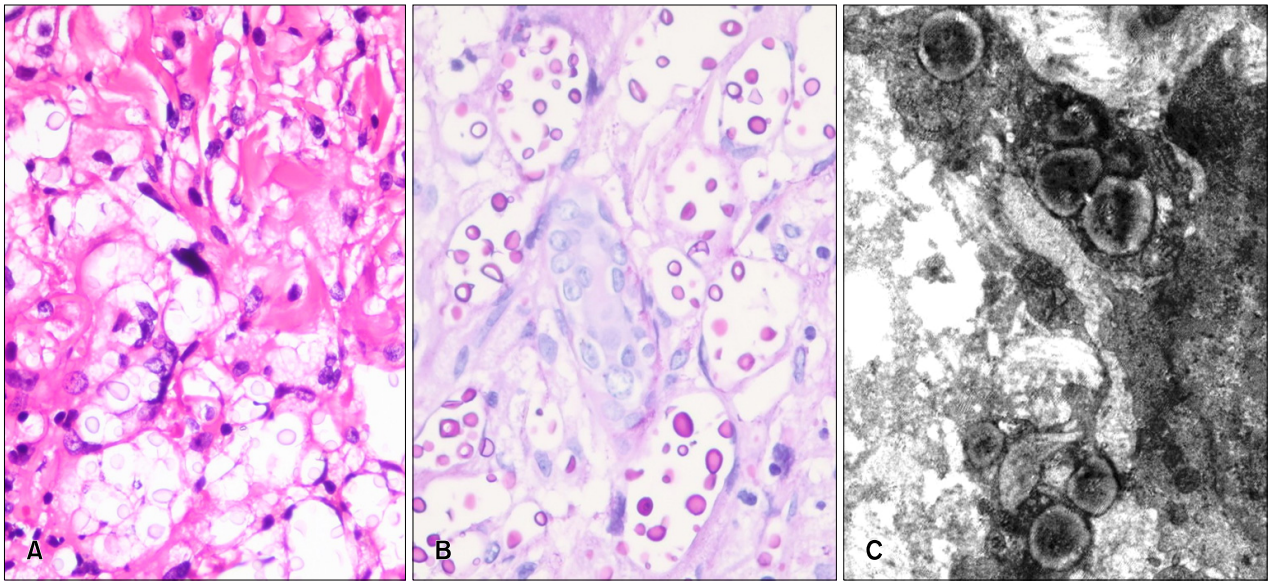

Fig. 2. (A) H&E staining of the subcutaneous tissue (×400). (B) Periodic acid-schiff staining of the yeast cells in subcutaneous tissue (×400). (C) Electron microscope image of encapsulated cells of *Cryptococcus neoformans* (×5,000).

bilateral infiltration in the lung, with pleural effusion on the right. Incision and drainage of the abscess were performed immediately, and thorough surgical debridement was performed 3 days later. On the 7th hospital day, pathological examination reported encapsulated yeast in subcutaneous tissue, suggesting *Cryptococcus neoformans* (Fig. 2). This was also isolated and identified (VITEK 2-compact) from blood, and the wound. A follow-up culture of cerebrospinal fluid was negative. When the definite diagnosis of disseminated cryptococcosis, cryptococcemia, cryptococcal NF, bilateral pulmonary infection and renal failure had been established, intravenous fluconazole (400 mg daily) was initiated. This dosage of fluconazole was continued for one month, and was then reduced by half, for another month. An oral maintenance dose was then given, for a further 4 months. She was discharged 54 days after admission, with her wounds completely closed with razor-thickness skin grafts.

Cutaneous dissemination occurs in approximately 10% of cases with cryptococcosis[2]. Most patients with cutaneous involvement have lesions, consisting of ecchymosis, papules, nodules, vesicles, ulcers, abscesses, and very rarely, NF[3,4]. The patients with cryptococcal NF are usually treated empirically for a presumed bacterial infection, without response, as in the present case.

C. neoformans can be isolated from blood cultures in 10% to 30% of patients with cryptococcosis[1]. Previous studies of patients with cryptococcemia have shown a high mortality rate, which was reported to be between 31% and 41%[1,5]. Cryptococcaemia signifies a fulminant form of cryptococcal disease, and requires early diagnosis, and prompt antifungal therapy.

Antifungal therapy is the cornerstone to treat disseminated cryptococcosis and cryptococcemia. However, for NF, and serious, large areas of cutaneous infections, surgical treatment is indispensable. Thorough debridement and drainage, reducing the chance of hematogenous spread, and preventing muscle necrosis, sepsis and death, were one of the keys to cure the patient.

This report highlights the need to recognize this rare infectious disease and its clinical manifestations, especially among those patients who are receiving treatments that produce a state of immunosuppression.

REFERENCES

1. Jean SS, Fang CT, Shau WY, Chen YC, Chang SC, Hsueh PR, et al. Cryptococcaemia: clinical features and prognostic factors. QJM 2002;95:511-518.
2. Warkentien T, Crum-Cianflone NF. An update on Cryptococcus among HIV-infected patients. Int J STD AIDS 2010; 21:679-684.
3. Capoor MR, Khanna G, Malhotra R, Verma S, Nair D, Deb M, et al. Disseminated cryptococcosis with necrotizing fasciitis in an apparently immunocompetent host: a case report. Med Mycol 2008;46269-273.
4. Adachi M, Tsuruta D, Imanishi H, Ishii M, Kobayashi H. Necrotizing fasciitis caused by Cryptococcus neoformans in a patient with pemphigus vegetans. Clin Exp Dermatol 2009; 34:e751-e753.

5. Pasqualotto AC, Bittencourt Severo C, de Mattos Oliveira F, Severo LC. Cryptococcemia. An analysis of 28 cases with emphasis on the clinical outcome and its etiologic agent. Rev Iberoam Micol 2004;21:143-146.

http://dx.doi.org/10.5021/ad.2014.26.2.275

Levels of Serum Soluble P-Selectin and E-Selectin in Psoriatıc Patients

Arzu Ataseven, Huseyin Ataseven[1], Perihan Ozturk[2], Mehmet Ozdemir[3], Recep Kesli[4,*]

Department of Dermatology, Konya Training and Research Hospital, Konya,
[1]Department of Gastroenterology, Necmettin Erbakan University Faculty of Medicine, Konya,
[2]Department of Dermatology, Sutcu Imam University Faculty of Medicine, Kahramanmaras,
[3]Department of Microbiology, Necmettin Erbakan University Faculty of Medicine, Konya,
[4]Department of Microbiology, Konya Training and Research Hospital, Konya, Turkey

Dear Editor:

Psoriasis is an immune-mediated, chronic inflammatory disease[1]. Selectins generate the first adhesive stage contributing to the tethering and rolling of leukocytes into the vascular endothelium for the distribution of immune cells to the inflamed tissue. This essential role is a potential target for the development of novel treatments[2]. The main aim of our study was to determine the levels of serum soluble P-selectin (sP-selectin) and soluble E-selectin (sE-selectin), which contribute to the inflammatory process in the pathogenesis of the disease, in patients and controls; and to assess the association between sP-selectin and sE-selectin levels and the severity of the disease. We also intended to evaluate whether these molecules contribute to the pathogenesis of psoriasis, which is known to have multifactorial etiologies. Between July 2012 and September 2012, twenty-four patients (9 males, 15 females) who were diagnosed with psoriasis clinically and/or histopathologically in our clinic were included in this study. The control group consisted of 24 healthy age-matched individuals with comparable demographical features (10 males, 14 females) and without any infectious, systemic or dermatological diseases, and who were not smokers. All participants signed the consent form prior to the study. Consent was also obtain from the local ethical committee (IRB approval: Necmettin Erbakan University Faculty of Medicine Ethics Committee, 2012-40). Patients who received systemic medication and/or phototherapy and topical antipsoriatic treatment were excluded from the study. Other factors for being excluded from the study were as follows: pregnancy, age less than 18 years, smoking, hypertension, diabetes mellitus, chronic renal failure, liver and cardiac failure, acute and chronic infections, autoimmune diseases and cancer. Peripheral blood samples were obtained from both the study and control groups. The samples were centrifuged at 3,500 rpm for 4 minutes, and the serum was stored at −80°C. Psoriasis area and severity index (PASI) scores of the patients with psoriasis were recorded. The data were statistically assessed. Statistical analysis was done with Mann-Whitney U using SPSS 15.0 (SPSS Inc., Chicago, IL, USA). A *p*-value less than 0.05 was considered significant. The mean age was

Received January 3, 2013, Revised April 6, 2013, Accepted for publication May 14, 2013

*Recep Kesli is now with Department of Microbiology, Afyon University Faculty of Medicine, Afyonkarahisar, Turkey.

Corresponding author: Arzu Ataseven, Department of Dermatology, Konya Training and Research Hospital, Meram, Konya 42090, Turkey. Tel: 90-0 505 691 58 59, Fax: 90-0 332 323 67 23, E-mail: arzuataseven@hotmail.com