



Subcutaneous Basidiobolomycosis in a fourteen month old child A mimicker of abscess and soft tissue sarcoma

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Abstract :

We present a rare case of subcutaneous basidiobolomycosis in a fourteen month old boy involving the left buttock and the upper two third of the left thigh. Mistaken initially for an abscess and soft tissue sarcoma, the diagnosis was established by a wedge biopsy from the growing edge. 6 weeks of antifungal therapy resulted in complete resolution of the swelling.

Keyword : Basidiobolomycosis Soft tissue sarcoma Abscess

Basidiobolomycosis

Introduction

Basidiobolomycosis is a rare sporadic infection caused by *Basidiobolus ranarum*, a saprophytic fungus. It belongs to the order Entomophthorales that comes under the family Zygomycota. It is usually seen in the tropical climes of Asia, Africa and South America. It presents usually in an immuno competent individual as a non tender, firm, woody indurated mass. The common sites

affected are the extremities and trunk and gastrointestinal tract. Involvement of the lung and disseminated infection is extremely rare. Here we report a case of subcutaneous basidiobolomycosis in a fourteen month old infant which was mistaken initially for an abscess and later for a soft tissue sarcoma. It is important for the surgeon to be aware of this condition as ignorance can lead to inadvertent surgery for a condition that can be well treated with medical measures.

Case report

A fourteen month old boy presented with history of swelling of the left buttock and the left thigh of three month duration. It started as a small indurated nodule on the left buttock which was mistaken for an abscess and was incised. The incision drained only blood and the child was put on antibiotics. Despite several weeks of antibiotic therapy, the swelling progressively enlarged to involve the entire left gluteus and the left thigh circumferentially till about 5 cm from the knee joint.

A clinical diagnosis of soft tissue sarcoma was made and he was referred to our institution for further management. Clinical examination revealed a firm to hard, non tender swelling with smooth and raised borders involving the entire left gluteus and the upper two thirds of the left thigh circumferentially with superficial scrotal skin necrosis. Routine investigations were normal. Phycomycosis was suspected clinically and a wedge biopsy and fungal cultures performed from the growing edge confirmed Basidiobolomycosis. Subsequently he was started on oral potassium iodide at 8 drops per day and Septran at 10mg/kg/day in two divided doses. 6 months of the same resulted in complete resolution of the lesion.



Discussion

Basidiobolomycosis is a rare fungal infection caused by the fungus *Basidiobolus ranarum* (1). The first case of Basidiobolomycosis was described by Lie Kian Joe in 1956 (2). The fungus *Basidiobolus ranarum* is seen in decaying vegetable matter as well as the gut of amphibians and reptiles. Traumatic skin implantation has been proposed as the mode of entry into humans. Boys are more commonly affected by this condition (3). Skin and the gastro intestinal tract are the commonly involved sites with lung and disseminated lesions also being described in literature (4). In the skin, it usually manifests as a painless indurated subcutaneous nodule on the trunk or extremities which if left untreated spreads

locally resulting in a firm indurated swelling with smooth borders and ability to insinuate the fingers under the borders of the swelling. These clinical features along with absence of lymph node involvement and absence of systemic signs help in differentiating Basidiobolomycosis from other conditions. In the gastrointestinal tract it presents as a differential to appendicitis, peritonitis, Crohn's disease, abdominal tuberculosis and colonic cancer (5,6). Definitive diagnosis is by histopathological analysis and culture from the growing edge of the lesion. HPE shows broad thin-walled hyphae surrounded by brightly eosinophilic material (Splendor hoeppli protein), with the background showing a dense eosinophilic infiltrate. The hyphae stain positive with Gomori's stain, methenamine silver and Masson's trichrome and faintly with PAS (7). Basidiobolomycosis responds very well to oral potassium iodide alone or in combination with azoles and is the treatment of choice (8). Occurrence of Basidiobolomycosis in a child less than two years is extremely rare with very few cases being described in the literature. The history of a preceding trauma in the form of insect bite or therapeutic injections (9) makes it extremely difficult to distinguish this from an abscess. As in our case it may lead to inadvertent incision for drainage. Rapid progression, extensive area of involvement and characteristics of the lesion can mimic a soft tissue sarcoma (10). Awareness of this condition is required on part of the surgeon in diagnosing this condition which can masquerade

as an abscess or a soft tissue sarcoma.

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