CASE REPORT

Rifampicin in pityrosporum folliculitis

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ABSTRACT

Rifampicin (Rp) is a semi-synthetic derivative of Rifamycin B, which is a representative of rifamycin – macrocyclic antibiotics produced by *streptomyces mediterranei*[1, 2] Rp inhibits the growth of most grampositive bacteria, as well as many gramnegative microorganisms, such as *escherichia coli*, *pseudomonas,* indole-positive and indole-negative *proteus*, and *klebsiella*. Rp is active against *staphylococcus aureus* and coagulase-negative *staphylococci.*[3] Rp blocks the DNA-dependent-RNA polymerase of mycobacteria and other microorganisms. A stable drug-enzyme complex is formed and the initiation phase of the RNA-synthesis is suppressed.

Pityrosporum folliculitis is a common inflammatory skin disorder patterned on the sebum-rich areas of the scalp, face and trunk. In addition to sebum, this dermatitis is linked to *malassezia,*[4] immunologic abnormalities, and activation of complement. It is commonly aggravated by different infection, changes in humidity, changes in seasons, trauma (eg, scratching), or emotional stress. The severity varies from mild dandruff to exfoliative erythroderma. Pityrosporum folliculitis may worsen in parkinson disease and in AIDS.[5, 6]

Numerous studies show that rifampicin causes immunosuppression and inhibits T-cell function associated with antibacterial function in conventional doses. Our object is to confirm the therapeutic effect of rifampicin in ptyrosporum folliculitis. Rifampicin, in a dose of 10mg/kg body weight for a period of 8 weeks was given for 47 patients suffering from ptyrosporum folliculitis and the drug cleared the lesions in 45 patients (95.74%). In patients who relapsed, a second course of the drug was effective.

KEYWORDS: Rifampicin, pityrosporum folliculitis

INTRODUCTION

Pityrosporum folliculitis is a clinically distinct condition most often seen in young adult males. Pityrosporum yeast can hydrolyze triglycerides into free fatty acids, and it has been postulated that an overgrowth of the yeast in a follicle produces folliculitis by a combination of fatty acid production and blockage of follicular ostium by scale.[1,2] The lesions consist mostly of small dome shaped follicular papules and scarce intermingling small pustules with minute inflammatory reactions. They are localized most frequently to the upper portion of the back, shoulders and chest. In recent years, oral antifungal therapy has gained growing acceptance for the treatment of pityriasis versicolor[3]. Though pityrosporum folliculitis is linked to malassezia,[4] immunologic abnormalities, and activation of complement. It is commonly aggravated by different infection, changes in humidity, changes in seasons, trauma (eg, scratching), or emotional stress. So trials of oral rifampicin in treatment of pityrosporum folliculitis showed significant effective result.

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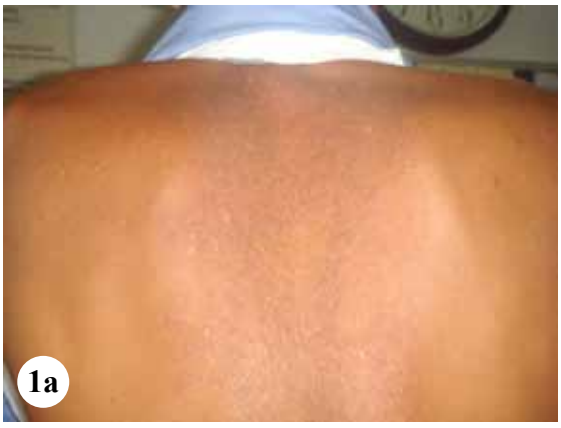

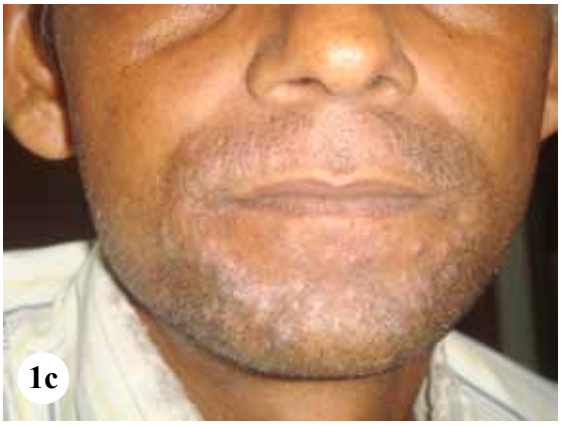

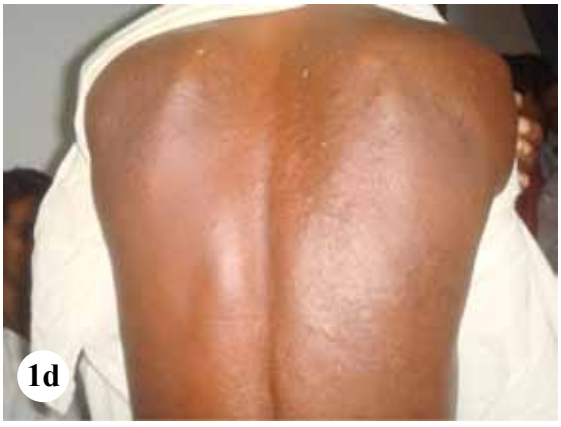

Fig. 1a,b,c,d, Shows pityrosporum folliculitis.

This study employed to see the efficacy of a 2 months regimen of rifampicin 10 mg/kg daily in patients with pityrosporum folliculitis.

MATERIALS AND METHODS

Fourty seven patients (41 male and 6 female) attending the dermatology out patient department of Community Based Medical College Hospital, Mymensingh, Bangladsh during the period from August 2010 to May 2011 were included in the study. All relevant demographic factors were entered in a proforma. The age, sex, body weight, social status, occupation, rural/urban, duration of lesion, relapse/remission, season of aggravation, sites affected, history of drugs/cosmetic/DM/any chronic diseases were all noted down. Baseline investigations and liver function tests were done in all patients. All patient was treated with rifampicin at a dose of 10mg/kg body weight per day for eight weeks. The response was assessed at the end of 4th and 8th weeks. The patients were followed up at monthly intervals after complete resolution and new lesions were treated with rifampicin for another period of 8 weeks or till the lesions resolved.

RESULTS

Rifampicin at a dose of 10mg/kg body weight was given to 47 patients for a maximum period of 8 weeks. 95.74% (45 patients) showed a remarkable recovery ie, resolution of all the lesions. 4.26% (2 patients) showed a mild response. Relapse of the lesions was seen in 15 out of 45 patients who were put on rifampicin. Seven out of 15 had recurrence within 3 months. All relapsed patients except one, also responded completely to the second course of rifampicin for another 8 weeks.

DISCUSSION

Wheat et al studied the long term effect of rifampicin on nasal carriage of coagulase positive staphylococci and claimed oral rifampicin at a dose of 600 mg daily for 7-10 days cleared the organism for 3 months in 80% of cases.[7] Our series also revealed 95.74% response with 8 weeks of therapy. Even though the recurrence rate was high and a second course of rifampicin for the same duration, cleared the lesions in all of them. The patients also had a mild form of the disease during the relapse. Our study clearly points out the effect of rifampicin which could be used as a first line drug in the treatment. However, this should be confirmed by performing large scale multicentre studies with long term follow-up. There is no correlation between the duration of illness and the response to therapy. As we are living in an endemic country, tuberculosis was excluded in all patients by appropriate clinical and laboratory parameters before starting rifampicin therapy. Liver function tests, done as a routine, did not show any abnormality.

CONCLUSION

Rifampicin could not be related only to its antimicrobial properties. The clinical results warrant us to recognise the statements of Paunescu, Nilsson, Gupta, Mlambo and Ziglam and to consider that rifampicin could be given to patients with ptyrosporum folliculitis. The therapeutic effect most probably is due to its immunosuppressive properties and suppressive action against different organism that may aggravate the disease process. But till the elucidation of their properties and their side effects we are convinced that rifampicin could be used in cases with pityrosporum folliculitis.

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