

PAPULONECROTIC TUBERCULID - RELAPSE AFTER TREATMENT

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A 44-year-old female suffered from boils on her elbows for the last 2 years. A diagnosis of papulonecrotic tuberculid was made based on clinical, laboratory parameters, histopathology, and a prompt response to antituberculosis treatment. Ten months following the completion of multi-drug treatment her lesions relapsed.

Key words : Tuberculids, Multi-drug therapy, Papulonecrotic, Relapse

Introduction

Papulonecrotic tuberculid (PNT) is a relatively uncommon manifestation of cutaneous tuberculosis that can also be associated with mycobacteria. It is considered to be a hyperergic response to the fragments released from a different site of present or past tuberculosis.¹ Prompt response to anti-tuberculosis treatment is its hallmark.

Case Report

A 44-year-old housewife presented with recurrent 'boils' around her elbows since the last 2 years. The boils would heal spontaneously, leaving behind unsightly scars. Examination revealed pea-sized crusted papules symmetrically located around both her elbows, interspersed with atrophic 'varioliform' scars, indicating previous healed lesions. Routine hemogram, urinalysis, blood sugar, liver and renal profiles were within normal limits. Her ESR was 35 mm./first hr. (Westgren). Repeated tests on sputum and urine were negative for acidfast bacilli. A chest

X-ray and ultrasound of her abdomen and pelvis were reported normal. At 72 hrs. Mantoux test was positive. Biopsy of a crusted papule showed focal epidermal necrobiosis, below which lay an area of necrobiosis, surrounded by mononuclear cells. The dermal vessels showed evidence of vasculitis. In view of the clinical, laboratory parameters and the histopathology, a diagnosis of PNT was made.

The patient was started on MDT consisting of rifampicin 600 mg, isoniazid 300 mg, and pyrazinamide 1500 mg. per day. Four weeks later, ethambutol 800 mg. per day was introduced. At the end of 8 weeks all the old lesions had healed with scarring and there were no new lesions, pyrazinamide was stopped at 3 months and the remaining drugs were continued for another 6 months (Total 9 months). The patient remained asymptomatic for the next 10 months after which it relapsed with lesions at the previously involved sites, which were fewer and smaller but went through the same stages of evolution as the previous ones. A repeat biopsy was similar to the last one. The patient was subsequently lost to follow up.

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Discussion

Darier in 1896, introduced the concept of "tuberculids" the clinical manifestations of which include papulonecrotic tuberculids, lichen scrofulosorum, and erythema induratum of Bazin. The entity is still being questioned today because the clinical and histological appearances are not very specific.¹ It is thought to represent an Arthus phenomena in a person with a moderate or high degree of immunity to the tubercle bacilli. The underlying focus may not be evident at that time.² Some studies have shown the existence of an extracutaneous focus in only 30-40 % case.³ Although the treatment of tuberculosis has undergone many changes in the last few decades with the present thrust on short-term MDT, there are very few controlled trials for the treatment of the tuberculids because of the paucity of cases. In the past, the tuberculids had been treated with single drug or drug combination for only 3 months. Using the standard regime recommended by the American Thoracic Society as the basic reference, it is hoped that the drugs administered for the prescribed time are likely to diffuse into all the body tissues including the hidden extra-cutaneous focus. Nakumuro et al treated a case of penile tuberculids with a combination of rifampicin and an extract of tubercle bacilli.⁴ Relapses have been reported in spite of MDT.⁵⁻⁷ The present case too, relapsed in spite of administering MDT for 9 months. It cannot be overemphasized that an aggressive search has to be carried out to

hunt out the extra-cutaneous focus or else monitoring the end-point of treatment impossible. The presence of "persister" bacilli as the cause of relapse also has to be considered. Usage of single drugs to treat the tuberculids as was the earlier practice needs to be discouraged because of the risk of promoting drug resistant bacilli in those with an undetected focus of infection.

References

1. Braun - Falco O, Thomas P. The tuberculid concept from the current point of view. *Hautarzt* 1995; 46 : 383-387.
2. Morrison JGL, Fourie ED. The papulonecrotic tuberculid - from Arthus reaction to lupus vulgaris. *Br J Dermatol* 1974 ; 91: 263 - 270.
3. Wilkinson DS. Mycobacterial Infections. In: *Textbook of Dermatology*, Edited by Rook A, Wilkinson DS, Ebling FJG, et al, 2nd Edn. Oxford : Blackwell Scientific, 1972; 1050-1051.
4. Nakamura S, Aoki M, Nakayama K, et al. Penis tuberculid (papulonecrotic tuberculid of the glans penis) : treatment with a combination of rifampicin and an extract of tubercle bacilli T.B. vaccine. [Review]. *J Dermatol* 1989 ; 16 : 150-153.
5. Kratule RV, Apine Ria, Auzane MK. [Problem of cutaneous tuberculosis] . *Probl tuberk* 1001;8 :49 -51
6. Kullavanjiya P, Srimachan S, Suvantaroj S. Papulonecrotic tuberculid: Necessity of long-term triple regimens. *Int J Dermatol* 1991 ;30 : 487-490.
7. Chaung YH, Kuo TT, Wang CM, et al. Simultaneous occurrence of papulonecrotic tuberculid and erythema induratum and the identification of *Mycobacterium tuberculosis* by DNA polymerase chain reaction. *Br J Dermatol* 1997 ; 137: 276-281.