Thoracic Discitis Following 'Woodbury' Rash

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SUMMARY: A case of thoracic discitis secondary to a pyoderma skin condition known as 'Woodbury' rash is described.

Introduction

'Woodbury' rash is a pyoderma skin rash predominantly caused by a Group A beta haemolytic streptococcus which is colonised secondarily by *Staphylococcus aureus*. It is named after Woodbury Common, Lymington, near Exeter which is used for Royal Marine training exercises. A variety of obstacle and endurance courses are carried out on the common. Skin trauma, resulting in sores and the rash, is caused by chafing, webbing equipment, and multiple gorse punctures. Metastatic spread to distant sites has not been reported (1). We report a case of staphylococcal discitis secondary to 'Woodbury' rash.

Case Report

A 19 year old male soldier was admitted to the Force Hospital, Belize, with a four month history of thoracic back pain following attendance on a Royal Marine military training course at Lymington. He was transferred to the Cambridge Military Hospital, Aldershot.

On examination at the Cambridge Military Hospital there was marked tenderness of the lower thoracic spine made worse by extension. Lateral rotation of the spine was reduced. Reflexes and straight leg raising were normal. He had an ESR of 13 and a normal white cell count.

Examination of his legs revealed a suppurating rash on both shins which he had had since attending the course.

Swabs from these lesion grew a mixture of Group A beta haemolytic streptococci and *Staphylococcus aureus* resistant to penicillin, sensitive to flucloxacillin, erythromycin and fucidic acid.

X-rays of the thoracic spine revealed narrowing at the T9/T10 level with increased paravertebral shadowing and erosion of the upper portion of the body of T10 (Figs 1, 2). A Magnetic Resonance Image (MRI) scan confirmed the diagnosis of discitis with adjacent bony involvement.

Disc biopsy under fluoroscopic control was obtained. This biopsy grew a *Staphylococcus aureus* sensitive to flucloxacillin, penicillin, erythromycin and fucidic acid. The histology showed subacute/chronic infection of the disc.

A diagnosis was made of septic discitis, secondary to the chronic suppuration of his legs. As he was known to develop wheezing when exposed to penicillin he was commenced on intravenous erythromycin 750 mg every six hours and oral fucidic acid 500 mg three times daily. This was subsequently converted after three weeks to an oral regimen of erythromycin and fucidic acid to

Fig 1. Lateral view of lower dorsal spine showing patchy erosion of the upper portion of T10.

Fig 2. Antero - Posterior view of lower dorsal spine.

give a total period of therapy of three months. A titration of serum against organism gave a satisfactory titre of 1 in 16 after one week of therapy.

Three months following treatment he was pain free with no focal tenderness and had radiological evidence of healing.

Discussion

We propose that the sequence of events in this case was that the 'Woodbury' rash was the primary focus for the *Staphylococcus aureus*. The subsequent slow develop-

ment of discitis and its clinical features is in keeping with previous reports (2, 3). Although the *Staphylococcus aureus* isolated from the skin at the time of admission to the Cambridge Military Hospital is a different strain from the disc isolate, we suggest that the initial rash was infected by a penicillin sensitive strain and he was then subsequently colonised by a penicillin resistance strain acquired in hospital.

Discitis in adults is a rare condition (4) most commonly affecting the lumbar vertebral disc spaces and is usually bacterial in aetiology. *Staphylococcus aureus* and *Escherichia coli* are the most commonly isolated pathogens (2, 3). Diagnosis is often, as in this case, delayed (2) and is made on the basis of history, examination, a raised white count and ESR. Radiographic changes are slow to appear but show that the site of the infection is within the disc with subsequent involvement of surrounding bone.

'Woodbury' rash has been responsible for considerable morbidity at Lympstone but is at present well controlled (1). This condition has been reported in other military communities and is often the cause of significant mortality (5). Metastatic spread of the *Staphylococcus aureus* from the skin is unusual in these cases and has never been reported from 'Woodbury' rash.

Metastatic sepsis with bacterial pyoderma should be considered in cases of unexpected illness in an otherwise fit soldier.

REFERENCES

1. CRUICKSHANK J G, LIGHTFOOT N F, SUGARS K H. A large outbreak of streptococcal pyoderma in a military training establishment. *J Hyg Camb* 1982; **89**: 209-21.
2. KEMP H B S, JACKSON J W, JEREMIAH J D, HALL A J. Pyogenic infections occurring primarily in intervertebral discs. *J Bone Joint Surg (Br)* 1973; **55-B**: 688-714.
3. MCCAIN G A, HARTH M, BELL D A, DISNEY T F, AUSTIN T, RALPH E. Septic discitis. *J Rheumatol* 1981; **8**:(1) 100-109.
4. LIFESO R M. Pyogenic spinal sepsis in adults. *Spine* 1990; **15** (12): 1265-1271.
5. ALLEN A M, TAPLIN D, TWIGG L. Cutaneous streptococcal infections in Vietnam. *Arch Dermatol* 1971; **104**: 271-280.