 DOI: 10.18231/2348-7240.2017.0009

Scrofuloderma- a rare case report

NS Neki[1,*], Jaswinder Singh[2], Parminder Singh[3], Riponjot Singh[4]

[1]Professor & HOD, [2]Junior Resident, Govt. Medical College, Amritsar, Punjab, [3]Assistant Professor, Dept. of Medicine, SGRD Institute of Medical Sciences, Vallah, Amritsar, Punjab, [4]Dental Hygiene Student, Georgian College of Arts & Technology, Barrie, Ontario, Canada

***Corresponding Author:**
Email: drneki123@gmail.com

Abstract

Scrofuloderma is a common form of cutaneous tuberculosis, which commonly involves parotid, submandibular, subclavicular regions and the lateral neck. They are often misdiagnosed as cold abscess. Diagnosis is made by clinical examination, mantoux test, acid fast bascilli (AFB) culture, fine needle aspiration cytology (FNAC) or biopsy or polymerase chain reaction (PCR). We report a case of 19 year old male presenting with painful swelling on neck. He was successfully managed with antitubercular (ATT) therapy for 6 months.

Keywords: Cutaneous tuberculosis, Scrofuloderma, Antitubercular therapy.

Introduction

Scrofuloderma (SFD) is a common variety of cutaneous tuberculosis affecting children and young adults.(1) It occurs more commonly in males in the age group of 20-35 years. It is characterised by the development of subcutaneous masses or nodules which are firm and painless. Later on, they enlarge and start suppurating. Lesions drain at the centre forming sinuses, which may ulcerate with reddish granulation at the base. The nodules are called scrofula, which is a Latin word for the brood sow (female pig used for breeding). Various sites involved are parotid, submandibular, subclavicular regions and lateral part of the neck.(2) The nodules may be erythromatous or skin coloured and the skin temperature over them is not raised, so they are called cold abscess.(3) Predisposing factors for SFD include poverty, malnourishment, overcrowding and HIV infection.(4) Diagnosis is made by clinical examination, mantoux test, acid fast bascilli (AFB) culture, (FNAC) or biopsy of the excised lesion and PCR. Treatment includes anti-tubercular therapy for 6 months.

Case Report

An 19 year old male presented with complaints of swelling on the left neck, which gradually increased in size and became tender, followed by the pus discharge from it. On further questioning, he gave history of evening rise of temperature. There was no history of contact with multiple sex partners, weight loss and anorexia. He was started on antibiotics, but with no relief. On physical examination, his vitals were normal, with temperature 37.2^{o}C. Skin examination revealed hypertrophied, pigmented scars with ulceration and reddish granulation, and discharging sinuses on the left side of the neck. Left side of the neck also had a nodular swelling of size 5 cm x 4 cm in the anterior triangle of the neck. It was soft, non tender and freely mobile. Skin temperature over the nodule was not raised. Systemic examination revealed no abnormality. Laboratory findings included Haemoglobin levels of 12.7 g/dl, erythrocyte sedimentation rate (ESR) was 65 mm at the end of one hour, total leucocyte count (TLC) was 13000/ cmm^3), differential leucocyte count (DLC) showed 78% neutrophills, 16% lymphocytes, 3% monocytes, 3% eosinophills and 0% basophills. Mantoux test was positive with 10 mm induration. He was negative for HIV, HBs Ag and HCV, X ray chest revealed findings of left sided consolidation. Sputum for AFB was negative. Histopathological examination of lesions revealed evidence of focal microabscess, neutrophils, epithelial granulomas as well as chronic inflammatory cells suggestive of granulomatous inflammation, possibly tuberculosis. Keeping in view the clinical and histopathological findings, a diagnosis of scrofuloderma was made and the patient was treated with anti-tubercular therapy (ATT). Local lesions were treated with topical gentamycin. On follow up at 2 months after taking ATT, the patient showed dry sinuses, healing of superficial ulcers leaving behind hyper pigmented hypertrophied scars. The patient was advised to continue ATT for 4 more months (total 6 months course).

Discussion

Scrofuloderma is a form of cutaneous tuberculosis caused by Microbacterium tuberculosis or Microbacterium bovin, resulting from direct extension from underlying tuberculosis focus which is commonly lymphadenitis or tuberculosis of bones and joints. Predisposing factors include poverty, overcrowding, malnutrition and HIV infection.(4,5) Usual sites of lesions include parotid, lateral are of the neck, submandibular and sublingual regions. Other forms of cutaneous tuberculosis include primary inoculation tuberculosis, tuberculosis verrucosa cutis, lupus vulgais,

metastatic tuberculosis abscess. SFD has features of chronic discharging sinuses, ulcerations, granulation tissue, crusts, hypertrophied scars and cicatricial bands.[6] Diagnosis is made by clinical examination, FNAC or biopsy of excised lesion, mantoux test, isolation of AFB on culture and PCR.[7] Differential diagnosis includes atypical microbacterial infection, actinomycosis, coccidioidomycosis, syphilis and sporotrichosis, chromoblastomycosis.[8] We did Gram staining, fungal culture and bacteriology culture to exclude above clinical entities.Treatment includes combination of isoniazid (10 mg/ Kg body weight/ day), rifampicin (10-20 mg/ Kg body weight/ day), pyrazinamide (20-35 mg/ kg body weight/ day) and ethambutol (25 mg/ Kg body weight/ day) for the first two months followed by the combination of isoniazid and rifampicin for the next 4 months. The possible complications include disseminated disease, chronic fistula formation and scarring.[3]

Conclusion

Tuberculosis of skin is not uncommon in India. Complete recovery is achieved with early, regular and adequate treatment to avoid complications and relapse. In some cases treatment has to be continued for 12 to 18 months depending upon the severity of the disease and immunological status of the patient. Those in close contact with the patient especially family members must be screened for tuberculosis.

References

1. Wolff K, Goldsmith LA, Katz SI, Gilcgrist BA, Paller AS & Leffel DJ. Fitzpatrick's Dermatology in General Medicine, Mc Grew Hill, New York, USA, 7th edition, 2008;31:1918-19.
2. Iftikhar U, Nadeem M, Aman S, Kazmi AH. Scrofuloderma: a coman type of cutaneous tuberculosis. A case report. Journal of Pakistan Association of dermatologist. 2011;21:61-65.
3. Clay JM, Meyer AD. Scrofula: Overview of Scrofula, Medscape Reference/ article/ 858234- overview; June 12, 2013.
4. Fernandez C, Maltez F, Lourenco S, Morgado A, Proenca R. Papulonecrotic tuberculid in human immunodeficiency virus type I patient with multidrug resistant tuberculosis. J EUR Acad Dermatol, Venerol. 2004;18:369.
5. Bravo F, Edurado G. Cutaneous tuberculosis. Clin Dermatol. 2007;25:173.
6. Raj VM, Shenoi SD, Gowrinath. Tuberculosis gluteal abscess coexisting with scrofuloderma and tubercular lymphadenitis. Dermatol Online J. 2005;11:14.
7. Winge BA Oftung F, Korsvold GE, Mannsaker T, Jeppesen AS. Screening for tuberculosis infection among newly arrived asylum seeker. Comparison of quantiferon TB gold with tuberculosis skin test. Bio Med Infect Disease. 2008;8:65.
8. James WD, Berger TG, Elston DM. Andrews' Diseases of the skin. Clinical Dermatology. Elsevier, Saunders, 11th edition, 2011.