INNOVATIVE TECHNOLOGICA
METHODICAL RESEARCH JOURNAL
ISSN: 2776-0987 Volume 2, Issue 11, Nov., 2021

CLINICAL CASE OF PAPULONECROTIC TUBERCULOSIS OF THE SKIN

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Abstract

In the background of the increase in the incidence of tuberculosis, cases of extra pulmonary forms of infection, including rare localizations with skin lesions, have become more frequent. Tuberculosis of the skin (TS) is caused by Mycobacterium tuberculosis of both types - M. Tuberculosis and M. bovis which often develops with hematogenous or lymphogenic dissemination of infection from tuberculosis foci in the lungs, lymph nodes, bones. Diagnosis of TC is based on a complex clinical and laboratory examination, including microbiological, histological, immunological data. Detection of TC is difficult due to the clinical and histomorphologicalpathomorphosis, the presence of atypical and erased forms, rare detection of mycobacteria in the skin, as well as due to the rarity of the disease and lack of alertness of clinicians. A case of papulonecrotic tuberculosis of the skin (PNTS) in a teenage girl, long-term undiagnosed, despite the characteristic clinical

INNOVATIVE TECHNOLOGICA
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symptoms and epidemiological history (contact with a patient with tuberculosis in the family), was described.

Key words: skin tuberculosis, papulonecrotic skin tuberculosis, clinical symptoms

Introduction

In the background of widespread tuberculosis infection in the world [14,22,23,30,32], cases of tuberculosis of the skin (TS) are increasingly reported [2,5,6,7,10,11,13,16,20,29,32]. Tuberculosis of the skin is caused by Mycobacterium tuberculosis of both human (Mycobacterium tuberculosis) and bovine species (Mycobacterium bovis) [1,3] with hematogenic, lymphogenic distribution from foci in the lungs or other organs, less often in contact [1,12,14]. However, regardless of the method of infection and the path of distribution, tuberculosis of the skin rarely develops due to the characteristics of vascularization, relatively low temperature, pH characteristics, significant aeration and other barrier properties of the skin [14,19,21]. Tuberculosis of the skin is usually diagnosed late, despite visually detectable symptoms [2,21]. An important factor is the clinical diversity of TS, low-symptom course, the presence of complications of secondary infection and eczematization, combinations of several clinical forms of TS (31), atypical variants [25,29], masking TS under nonspecific skin diseases [2,10,24,25]. Cases of vulgar lupus [2,15,16], indurative erythema [6,7,14,29], colliquative [11], warty [12], papulonecrotic [10,13,16,20,31] tuberculosis of the skin, erroneously diagnosed as various dermatoses, were described.

Case Report

Patient M.,was born in 2005, a native of Tashkent, was received in RSPCPPon 9.07.2019. with complaints of rashes in the face and body, minor itching, general weakness malaise, decreased appetite, fever to 37.5 C. the First rashes on the hands and face appeared 5 years ago. Received treatment with a diagnosis of lichen planus, the effect of therapy was not noted. As a child, she was vaccinated with BCG (photo3). In the family, she came to contact with a patient suffering with pulmonary tuberculosis.

Objectivity of case: the right physique, moderate fatness, subcutaneous fat is distributed evenly. The lymph nodes of the peripheral groups accessible to palpation are not enlarged, the skin above them is not changed. On the skin of the

ISSN: 2776-0987 Volume 2, Issue 11, Nov., 2021

face in the upper eyelid, cheeks, trunk, limbs localized papules brownish-bluish color, size 0.2-0.4 cm. The elements are scattered, evolutionary polymorphism is noted: along with fresh nodules, there are elements with necrotic areas in the center, covered with tightly seated hemorrhagic crusts, as well as atrophic scars of a rounded shape in the places of pre-existing elements (photo 1,3,4). In the eyelid area, the elements are arranged in the form of a small plaque, along with the scars there are fresh papules and crusts (photo2). Hair and nails are not affected. Subjective sensations: slight itching. Histological studies: necrosis area surrounded by nonspecific infiltrate is detected, granulomatous infiltrate along the periphery, acid-resistant bacteria are diognasticated. Vascular changes are shown. Laboratory data: General and biochemical blood and urine tests within normal values. In the sputum MBT were not identified, (BK-). Reaction to Mantoux test with 2 TE is positive — a papule is 16 mm. On CT in the right lung S10, S9 air pockets in the roots of hilar lymph nodes (TVGLU) were detected.

Diagnosis: tuberculosis of the intrathoracic lymph nodes. Papulonecrotic tuberculosis of the skin. The diagnosis was established on the basis of clinical and histological symptoms, positive tuberculin tests, the presence of TVGLU and contact with a patient with tuberculosis in history.

Discussion

Papulonecrotictuberculosis (PNTS), along with lichenoid and indurative, refers to disseminated forms of TC [1,3,17,18]. The undoubted etiology of M. tuberculosis is now recognized [26,27].

PNTS, (tuberculosis cutis papulonecrotica; papulonecroictuberculid)is an allergic vasculitis of tuberculous etiology in patients with severe delayed hypersensitivity reaction. It occurs mainly in the chronic course of primary tuberculosis as a result of periodic hematogenic dissemination of a small number of mycobacteria [1,17,18,19]. Mainly adolescents and children suffer, as well as women aged 16-40 years[13,17]. Rashes are located on any areas of the skin, but the favourite localizations are the extensor surfaces of the limbs, on the buttocks, shins, trunk, ears and face, grouped around the joints, symmetrically [12,13]. Papules numerous, dense, brownish-purple, size 1-3 mm, appear paroxysmally. In their center, pus-like necrotic crusts are formed, after healing, "stamped" scars remain [1,3,13]. Evolution and scarring of individual foci lasts 4-8 weeks. Due to the uneven

ISSN: 2776-0987 Volume 2, Issue 11, Nov., 2021

appearance of new eruptions, elements in different stages of development (evolutionary polymorphism) are observed [1-3, 19, 20]. The disease usually recurs in early spring and winter, summer is not manifested. PNTS is often combined with tuberculosis of lymph nodes, tuberculosis of lungs, bones, indurative erythema [16]. The primary focus (in the lungs, lymph nodes, bones and joints) is often inactive. Between exacerbations, the general condition of patients usually does not change. Tuberculin samples are usually positive. Mycobacterium tuberculosis is found in isolated cases [1,3,17,19].

There are several varieties of papulonecrotic tuberculosis:

- Acne - a papulose form that occurs in children in the prepubescent and pubertal periods and looks like vulgar acne. Elements of the rash appear symmetrically on the face, less often on the skin of the chest and extensor surfaces of the upper extremities, they leave deep scars after ulceration;
- Folliculis-a deeper pustular variety with follicular lesions on the skin of the trunk and lower limbs in adolescents and young men;
- Acnecachecticorum-papulopustules with characteristic crateroform ulcers and smallpox-like scars. Tuberculin samples are negative due to low immune reactivity of the body. In weakened, asthenized patients, the appearance of larger compacted elements of PNTS, with less pronounced necrotization, transforming into compacted basene erythema is possible [16]. Combined lesions of PNT with vulgar lupus are described [31], as well as a special form-Levandovsky's rosacea-like tuberculid, which is considered by some authors as a kind of papulo-necrotic tuberculosis of the skin, by others, as a form of miliary disseminated lupus TS[2,13].

PNTS diagnosis is based on clinical manifestations, localization of the pathological elements that are typical of ridges, the presence of other localizations of tuberculosis, positive tuberculin test, history of contact with tuberculosis patients. To identify in the clinical material MBT uses a classical method of direct bacterioscopy of smears which are stained according to cyl-Nielsen; fluorescent microscopy; led (Led) fluorescent microscopy; seeding on dense media of Lowenstein-Jensen and molecular genetic methods of PCR, allowing to identify the pathogen by the presence in the DNA structure of species-specific sequences for MBT [8,27,31]. Quantiferon-TB Gold-M. (latent tuberculosis infection, including

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the disease itself) refers to modern methods of diagnosis[8,28]. Histological examination revealed in the center of the focus area of necrosis of the epidermis in the upper parts of the dermis, surrounded by a zone of nonspecific inflammatory infiltration, in the peripheral parts of which reveal typical tuberculoid structures with caseous necrosis, as well as thickening of the walls of blood vessels and infiltration of inflammatory elements (vasculitis) [10,12,17,18,27,28].

The disease is differentiated from necrotic acne, oil folliculitis, tubercular syphilis, annular granuloma, nodular necrotic vasculitis, malignant atrophic pustulosis[1,2,3,14,17,18,26]. PNTS Treatment is carried out with specific anti-TB drugs. The prognosis in the absence of severe tuberculous lesions of the internal organs is favorable.

The described case of PNTS is of interest as a rare dermatosis, initially diagnosed as lichen planus. The diagnosis of tuberculosis was not established immediately despite the typical clinical symptoms, as well as prolonged contact with a tuberculosis patient in the family. This fact indicates the lack of vigilance against cutaneous tuberculosis on the background of a tense epidemiological situation and insufficient knowledge of practitioners about the clinic of papulonecrotic tuberculosis of the skin.

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METHODICAL RESEARCH JOURNAL
ISSN: 2776-0987 Volume 2, Issue 11, Nov., 2021

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Photo 1.

Photo 2

Photo 3-4

Photo1-4. Papules on the face, cheeks, zone of the left eyelid (1-2), on the hand(3) and extruded cicatrix.