Case Report
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Telangiectasia macularis multiplex acquisita: A new entity and literature review

Edinilmiş telenjiektazi makülaris multipleks: Yeni bir antite ve literatür taraması

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Abstract

Telangiectasia macularis multiplex acquisita (TMMA) is a very rare entity that has been reported in the Asian population to date. Associations with hepatitis infection and several other systemic diseases have been reported. Its association with hepatitis C infection is a newly designated entity. Here, a 42-year-old Turkish patient with hepatitis C infection who was diagnosed with TMMA is presented, and a literature review is given. Recognition of the characteristic presentation of this rare disease will facilitate the clinician's diagnosis and approach.
Keywords: Acquired telangiectasia, erythema, hepatitis C

Öz

Edinilmiş telenjiektazi makülaris multipleks (TMMA), bugüne kadar Asya popülasyonunda bildirilen çok nadir bir antitedir. Hepatit enfeksiyonu ve diğer bazı sistemik hastalıklarla birliktelikler rapor edilmiştir. Hepatit C enfeksiyonu ile ilişkisi yeni tanımlanan bir antitedir. Burada hepatit C enfeksiyonu olan ve TMMA tanısı alan 42 yaşında bir Türk hasta sunulmakta ve literatür taraması verilmektedir. Bu nadir hastalığın karakteristik görünümünün bilinmesi, klinisyenin tanı ve yaklaşımını kolaylaştıracaktır.
Anahtar Kelimeler: Edinsel telanjiektazi, eritem, hepatit C

Introduction

Telangiectasia macularis multiplex acquisita (TMMA) is a rare disease characterized by asymptomatic telangiectasias in erythematous macules. The skin lesions are commonly distributed across the arms (100%), chest (68%), thighs (28%), and back (20%). The etiology of this disease is unclear, and it can be accompanied by systemic diseases, especially hepatitis[1]. Here, a patient diagnosed with TMMA is presented, and the current literature is reviewed.

Case Report

A 42-year-old Turkish man presented with erythematous macules with telangiectasias on the upper chest, back, and upper arms, which had occurred last year. The lesions started in the upper arms and spread to the back and chest. The patient had a 15-year history of hepatitis C infection and was not under treatment. He also had hypertension and had been smoking one pack of cigarettes per day for 20 years. Dermatological examination revealed scattered erythematous macules with telangiectasias bilaterally on

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the upper arms, back, and anterior chest (Figure 1). Histopathological examination of the skin of the left upper arm revealed telangiectatic vascular structures in the superficial dermis with minimal mononuclear inflammatory cell infiltration around them. Streptavidin-peroxidase staining revealed fewer than five anti-CD117-positive mast cells in the dermis at high magnification (Figure 2). The results of laboratory investigations were reported as aspartate aminotransferase: 55 U/L, alanine aminotransferase: 67 U/L, hepatitis C virus antibody (anti-HCV): 13,478 IU/mL, HCV-RNA: 1,970,008 IU/mL, rheumatoid factor: 11.8 IU/mL, and antinuclear antibody: negative. In the genotype analysis, HCV genotype 1b was detected. On the basis of the history of the disease and dermatopathological examinations, the patient was diagnosed with TMMA. As the patient had no cosmetic expectations, he was informed about the disease and followed up. Informed consent was obtained from the patient for the publication of his data on any medical platform accessible to the public.

Discussion

TMMA is a rarely reported entity in the English literature. Almost all cases in the literature have been reported in the Asian population. It has a characteristic clinical appearance. It is characterized by erythematous macules on the shoulders, upper arms, back, and anterior trunks. Scattered telangiectasias are observed in these macules. The patients did not have any subjective complaints other than cosmetic discomfort. Telangiectatic macules are not expected to regress spontaneously[1].

The etiology of this disease remains unclear. In a case series, hepatitis, hypertension, diabetes, and dyslipidemia were reported to be associated with this disease. In the same series, the rates of smoking and alcohol consumption were found to be relatively high in these patients. Concomitant hepatitis has also been reported in a small number of case reports in the literature[2-5]. The demographic characteristics and comorbidities of the reported patients are summarized in Table 1. Various theories have been proposed to explain the etiopathogenesis of this disease. An increase in growth factors secondary to liver damage, dysfunction of autonomic nerve functions in arteriovenous shunts, impairment of estrogen metabolism, and an increase in fibroblast growth factor were evaluated as possible causative factors[2]. Cutaneous capillary ischemia and increased secondary vascularity due to smoking may also cause erythema and a telangiectatic appearance[6]. However, its etiopathogenesis remains unclear.

In this patient, no possible cause other than hepatitis C, hypertension, or smoking was identified.

TMMA is recognized as a distinct clinical condition characterized by multiple asymptomatic erythematous and brownish macules featuring telangiectasias, predominantly affecting the bilateral upper arms

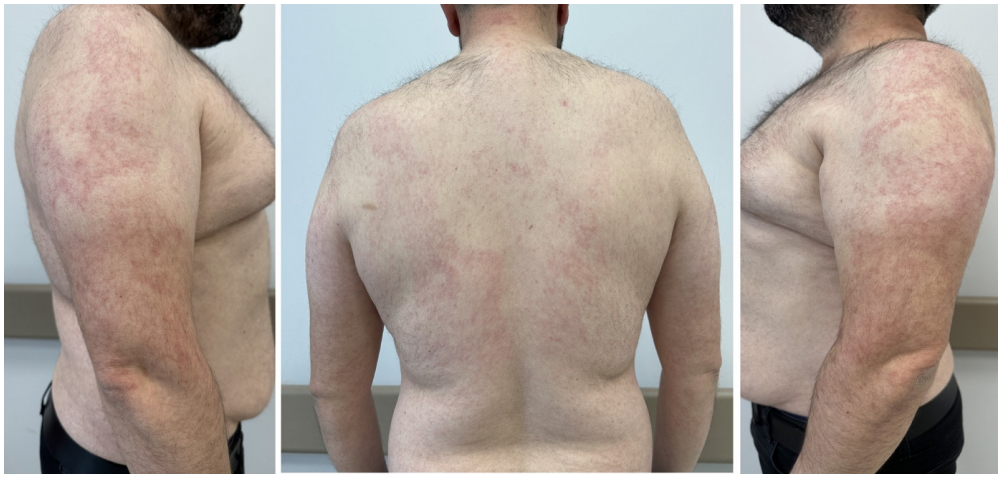

Figure 1. Erythematous telangiectatic macules on the bilateral shoulders, upper arms, and back

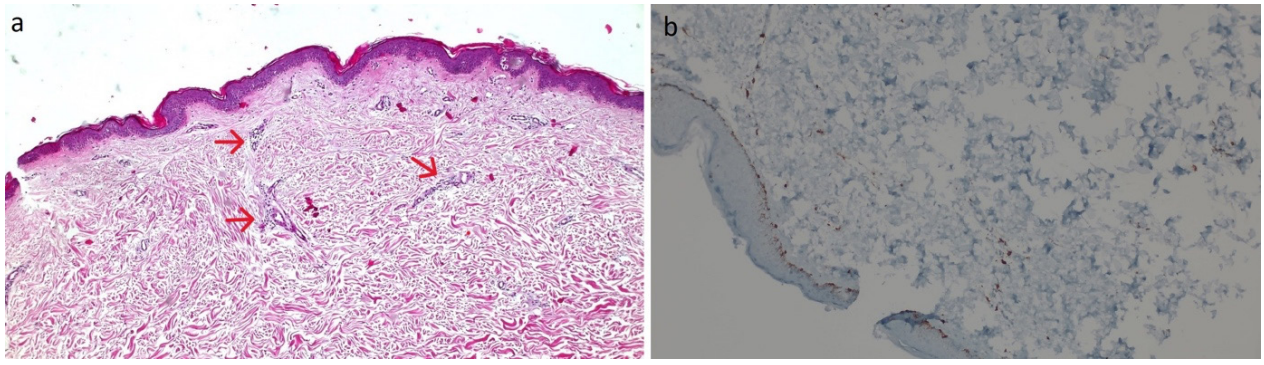

Figure 2. Histopathological examination of the skin of the left upper arm. **(a)** Normal thickness of the epithelial layer, orthokeratosis, telangiectatic vascular structures in the superficial dermis, and minimal mononuclear inflammatory cell infiltration around them (red arrows) (hematoxylin and eosin staining, x50). **(b)** Fewer than 5 anti-CD117-positive mast cells were observed in the dermis (streptavidin-peroxidase stain, x100)

and trunk. Histopathologically, TMMA is characterized by mild perivascular lymphocytic infiltration and a unique telangiectasia pattern. Etiologically, TMMA has been associated with hepatitis B infection, indicating a possible spectrum of vascular changes related to liver disease[3]. From an epidemiological perspective, TMMA primarily affects older adults with a history of liver conditions, in contrast to other forms of telangiectasia that may occur in younger populations. The use of enhanced dermoscopic features, such as the angioid streak pattern, facilitates accurate diagnosis and may reduce the necessity for invasive diagnostic procedures[7].

In addition, the fact that the disease is almost exclusively reported in Asian populations in the current literature may suggest a racial predisposition[4]. However, this may also be related to clinicians' recognition of the disease. This is the first case reported outside Asia in the English literature.

Telangiectasia macularis eruptiva perstans (TMEP) should be considered the most critical disease in the differential diagnosis. TMEP involves mastocytosis, and the predilection areas of erythematous macules are predominantly the trunk and extremities. Histopathologically, it is differentiated from TMMA by the mast cells observed in the papillary dermis[8]. In the present case, there were fewer than five mast cells in the dermis.

The differential diagnosis should consider other conditions presenting with similar telangiectasia, including TMEP, spider angioma, and generalized essential telangiectasia (Table 2)[2,7].

Given that the disease affects only appearance, treatment can be administered according to the patient's cosmetic expectations. Laser systems that target vascular structures, such as pulsed dye lasers, can be used for treatment. Considering the benign nature of the disease, the patient stated that he had no cosmetic expectations and was only followed up. Follow-up and treatment for hepatitis were continued in the relevant departments[1].

Table 1. Reported cases of telangiectasia macularis multiplex acquisita

Reference	Age, sex	Clinical features	Lesion distribution areas	Nationality	Smoking	Alcohol consumption	Accompany diseases
Chang et al.[2]	19/25 (76%), M 6/25 (24%), F	Multiple erythematous macules with telangiectasia	Arm 25 (100%) Chest 17 (68%) Back 5 (20%) Thigh 7 (28%)	Taiwanese	20/22 (90.91%)	9/23 (39.13%)	Hepatitis B 11/23 (47.83%), hepatitis C 2/23 (8.7%), diabetes 7/18 (38.89%), hypertension 9/18 (50%), dyslipidemia 11/17 (64.71%)
Wang et al.[3]	64, M	Telangiectasia superimposed on the erythematous macules	Bilateral upper arms, and the upper part of his trunk	Chinese	Occasionally	Occasionally	Hepatitis B
	64, M	Asymptomatic telangiectasia, erythema	Upper part of his trunk and upper arms	Chinese	10 cigarettes per day	Occasionally	Hepatitis B
Zhao et al.[4]	52, M	Multiple erythematous macules with telangiectasia	Chest and upper arms	Chinese	Yes	Yes	Hepatitis B
	57, M	Multiple erythematous macules with telangiectasia	V-shaped area of his anterior chest, back, and both arms	Chinese	Yes	Yes	Hepatitis B, diabetes
Su and Tsai[5]	53, M	Multiple asymptomatic erythematous and brownish macules with telangiectasia	Bilateral arms and the upper chest	Taiwanese	1 pack per day	Occasionally	Hypertension
Present case	42, M	Erythematous macules with telangiectasias	Upper chest, back, and upper arms	Turkish	1 pack per day (20 years)	No	Hepatitis C, hypertension

F: Female, M: Male

Table 2. Differential clinical features of generalized telangiectasia

	TMMA	TMEP	Spider angioma	Generalized essential telangiectasia
Age of onset	Adult	Adult	Adult	Adult
Lesion distribution areas	Bilateral upper arms and trunk	Trunk and limbs	Above line between nipples	Lower legs
Association	Viral hepatitis, metabolic syndrome, or smoking and alcohol use	-	-	-
Histopathology	Mild chronic inflammation with or without telangiectasia	Mast cells in the upper dermis	Central ascending arterioles	Dilated blood vessels in upper dermis

TMMA: Telangiectasia macularis multiplex acquisita, TMEP: Telangiectasia macularis eruptiva perstans

Ethics

Informed Consent: Informed consent was obtained from the patient for the publication of his data on any medical platform accessible to the public.

Footnotes

Authorship Contributions

Surgical and Medical Practices: E.Z., M.T., R.Y.G., M.A., Ş.K., Concept: E.Z., M.T., R.Y.G., M.A., Ş.K., Design: E.Z., M.T., R.Y.G., M.A., Ş.K., Data Collection or Processing: E.Z., M.T., R.Y.G., M.A., Ş.K., Analysis or Interpretation: E.Z., M.T., R.Y.G., M.A., Ş.K., Literature Search: E.Z., M.T., R.Y.G., M.A., Ş.K., Writing: E.Z., M.T., R.Y.G., M.A., Ş.K.

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