Case Report

Puffy Hand Syndrome Revealed by a Severe Staphylococcal Skin Infection

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Puffy hand syndrome develops after long-term intravenous drug addiction. It is characterized by a nonpitting edema, affecting the dorsal side of fingers and hands with puffy aspect. Frequency and severity of the complications of this syndrome are rarely reported. Local infectious complications such as cellulitis can be severe and can enable the diagnosis. Herein, we report the case of a 41-year-old man who went to the emergency department for abdominal pain, fever, and bullous lesions of legs and arms with edema. Bacteriologic examination of a closed bullous lesion evidenced a methicillin sensitive Staphylococcus aureus. The abdomen computed tomography excluded deep infections and peritoneal effusion. The patient was successfully treated by intravenous oxacillin and clindamycin. He had a previous history of intravenous heroin addiction. We retained the diagnosis of puffy hands syndrome revealed by a severe staphylococcal infection with toxic involvement mimicking a four limbs cellulitis. Puffy hand syndrome, apart from the chronic lymphedema treatment, has no specific medication available. Prophylactic measures against skin infections are essential.

1. Introduction

Puffy hand syndrome develops in long-term intravenous drug users. Frequency and severity of the complications of this syndrome are rarely reported. We report here a case of puffy hand syndrome revealed by a severe staphylococcal infection with toxic complications mimicking a four limbs cellulitis.

2. Case Presentation

A 41-year-old man was admitted to our institution for bilateral feet, legs, arms, and hand edema with fever. He had a previous history of HCV hepatitis and intravenous heroin addiction cured fifteen years ago. Heroin addiction was substituted by buprenorphine, without buprenorphine intravenous injection.

He had been reporting progressive feet and hands edema for several years, which became permanent for six months. He saw his general practitioner for worsening of edema with erythema. He was prescribed paracetamol and a nonsteroidal anti-inflammatory drug. Five days later, he went to the emergency department for abdominal pain and bullous lesions of legs and arms. He had a 39°C fever and severe sepsis clinical criteria.

He had nonpitting edema with erythema of feet, legs, hands, and forearms. Several bullous lesions affected his hands and feet (Figure 1) without formal argument for a necrotizing fasciitis or a staphylococcal scalded skin syndrome.

Blood cells count revealed hyperleukocytosis, C reactive protein was increased, and the patient suffered from acute renal failure. Bacteriologic examination of a closed bullous lesion evidenced a methicillin sensitive Staphylococcus aureus. HIV, B hepatitis, and syphilis serologies were negative. The abdomen computed tomography excluded deep abscesses or peritoneal effusion.

The patient was successfully treated by hemodynamic support and intravenous oxacillin and clindamycin. Erythema and abdominal pain regressed within a few days. Two months later, we confirmed persistent feet and hands edema. Lower and upper limb venous doppler excluded deep
Puffy hand syndrome is a long-term complication of intravenous drug abuse. Firstly described by Abeles in 1965 in New York prisoners, it could affect from 7 to 16% intravenous drug abuse. Firstly described by Abeles in 1965 in New York prisoners, it could affect from 7 to 16% intravenous drug use [1, 2]. Sex (women), injections in the hands and forearms in addicts, provoke lymphatic damages; most patients with repeated erysipelas have significant and even permanent abnormalities in regional lymphatic drainage [10].

4. Conclusion

Puffy hand syndrome has no specific treatment available. Chronic lymphedema treatment is based on low-stretch bandaging and wearing elastic garment [11]. Prophylactic measures against skin infections are essential.

Conflict of Interests

Authors declare no conflict of interest concerning this paper.

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