

Mistreatment of Diabetic Foot Ulcer with Leech therapy caused Necrotic fasciitis and Amputation

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Key clinical message

A diabetic foot ulcer is a common complication in diabetes patients. Different methods are used to manage the ulcer such as leech therapy. This therapy may have some noticeable complications like Necrotic Fasciitis.

Keywords : Leech therapy, Diabetes mellitus, Diabetic foot ulcer, Mistreatment

Case Report

A 72-year-old woman with a history of Diabetes mellitus was admitted to the hospital with loss of consciousness and Diabetic Foot Ulcer (DFU) on her right leg on June 26th, 2023 (Figure 1). According to what her family said; one month ago, she was admitted to the hospital, and right leg amputation was recommended for her but she decided not to follow the recommendation and left the hospital. She got leech therapy two days ago, and after the therapy, the wounds started bleeding and the night before admission she started losing consciousness.

On admission Blood pressure was at 135/75 mmHg, Respiratory rate was at 24 per minute, Pulse Rate was at 110 pulse/minute and the temperature was at 37.1° centigrade.

In physical examination, she was lethargic but was oriented to time and place. It was noted that crepitation in the wound has been extended to the knee.

A color Doppler ultrasonography in the evaluation of the DFU showed a monophasic arterial flow pattern, atherosclerotic plaques throughout the artery, and gas in foot muscle sheets from ankle to knee which was seen in X-Ray, too (figure 2).

Lab data on admission reported C-reactive protein at 219 mg/L, Withe blood cell count at 20000 per μ L, and platelet count at 410000 per μ L. The urine culture showed no growth of bacteria after 24 hours.

The patient was given Meropenem injections (1g, BD) and Linezolid injections (600g, BD) with Vitamin B6 orally (BD).

Due to the evidence, the patient was diagnosed with Necrotic fasciitis and got transfemoral amputation (figure 3).



Figure 1: DFU



Figure 2: X-Ray of the area



Figure 3: After Amputation

Discussion

One of the most important complications of Diabetic Mellitus (DM) is Diabetic Foot Ulcer (DFU). A significant number of the patients diagnosed with Diabetic Mellitus would experience DFU (1).

Necrotic Fasciitis that can be developed in a DFU is a rare but dangerous infectious disease of soft tissue (2).

Leech therapy as a treatment method for Diabetic Foot Ulcer may have complications, such as Bleeding; which can be controlled by topical thrombin and pressure; if not, blood transfusion can be helpful, Allergic responses and scarring. *Aeromonas hydrophilia*, a Gram-negative bacterium in a leech's digestive system can lead to abscesses, cellulitis, and sepsis if it's not developed in a standard criteria (3).

Conflict of interest

None.

Funding information

None.

Consent

Written informed consent was obtained from the patient to publish the current case report.

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