

# Infection at Insulin Injection Site: An Educational Challenge

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## Background:

Insulin is lifesaver for people with type 1 diabetes mellitus (DM) and an essential therapy for many with type 2.

Insulin injection may seem a simple and harmless gesture, but in certain situations, this daily therapeutic practice could be the source of fatal complications ranging from simple localized skin infections to serious septic states.

## Case Report :

Four patients are included, They are in the age range of 29-81 years, diabetics and insulin-treated with syringe injections. Glycemia ranged of 300 -490 mg/dl.

Patients present infiltrated inflammatory placard centred by an ulceration and a purulent background in thigh or abdominal wall. Ultrasound revealed subcutaneous suprafascial collection or extending abdominal gangrene ranging between 2,5 and 6 cm. Bacteriological examination revealed Meti-Sensitive Staphylococcus or streptococcus.

All patient were treated with broad-spectrum antibiotics, mechanical drainage, as well as intensified insulin therapy,

reconstructive surgery after healing of the infection in one case.

## Conclusion:

General and local immunodepression caused by diabetes, especially when unbalanced, constitutes a highly susceptible terrain for the development of infections. Skin complications at the injection site are fairly frequent, due to non-compliance with injection techniques and asepsis rules, and insulin therapy can lead to skin complications. We illustrate how a simple gesture can be life threatening. Educational survey with our patients highlighted technical errors, in particular prolonged use of the same insulin syringe, and asepsis faults.

Therapeutic education to the rules of self-injection is fundamental in the care of the diabetic patient.

## Keywords:

Diabetes Mellitus, Insulin-therapy, Infection, Injection site.