Necrotising fasciitis below the inframammary fold

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DESCRIPTION

An 83-year-old woman with dementia presented with fever and acute-onset erythema on her left chest wall under the breast. It appeared 3 hours before arrival to our emergency department. She had no diabetes mellitus and no sign of recent operation. She had been treated with a topical corticosteroid for miliaria under her left breast for several weeks. On examination, her body temperature was 39.9° with blood pressure of 150/74 mm Hg, heart rate of 88 beats/minute and respiratory rate of 28 breaths/minute. Her white cell count was 12.3x10^9/L with a normal C reactive protein level. Her left chest wall under the breast was swollen with bullae and ecchymoses (figure 1). The skin lesions rapidly extended over a period of 6 hours even after administration of cefazolin. An exploratory incision revealed necrosis of the superficial fascia and thin exudate without purulence (figure 2). We finally diagnosed her with necrotising fasciitis based on these findings, and performed surgical debridement. She was discharged without any further complications.

Necrotising soft-tissue infections (NSTIs) including necrotising fasciitis commonly involve the extremities, perineum and neck, but the chest wall is a rare site of NSTIs.[1] NSTIs worsen rapidly over a period of several hours and lead to death. Surgical exploration is the only way to establish a diagnosis.[2] In addition, this patient may not have pain on the chest wall because she had dementia. That could have delayed the diagnosis. It is generally difficult to figure out the accurate complaints of patients with dementia. This condition may lead to a delay in the diagnosis of diseases (ie, necrotising fasciitis) which clinical and physical findings are important to diagnose. Thus, we should carefully evaluate the possibility of NSTIs based on these findings and perform surgical debridement even when atypical NSTIs are suspected.[3]

Another important finding of this case is that not only oral but also topical corticosteroids may be associated with NSTIs because a topical agent can cause epidermal barrier disturbance.[4 5] We should also consider the potential adverse effects of a topical corticosteroid.

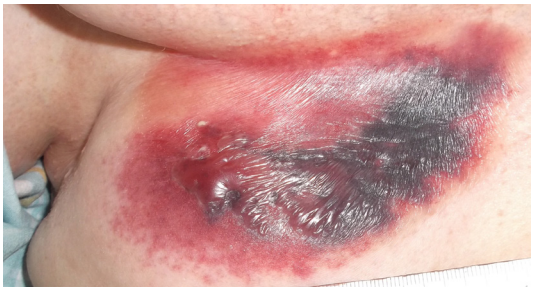

Figure 1 Her left chest wall under the breast was swollen with bullae and ecchymoses 3 hours after the appearance of erythema.

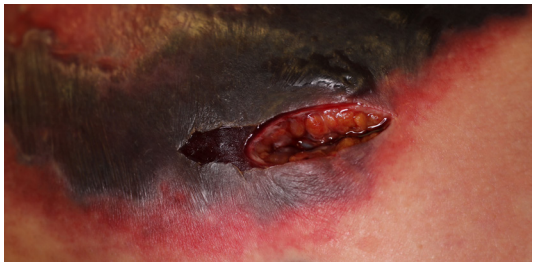

Figure 2 An exploratory incision revealed necrosis of the superficial fascia and thin exudate without purulence.

Learning points

- The chest wall is an unusual site for necrotising soft-tissue infections.
- In addition to clinical and physical evaluation, surgical debridement is necessary to confirm necrotising soft-tissue infections even when atypical infections are suspected.
- Not only oral but also topical corticosteroids may be associated with necrotising soft-tissue infections.

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