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Pyoderma Gangrenosum complicating a permanent pacemaker implantation

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Topic(s): Device Complications and Lead Extraction

Citation:

Pyoderma Gangrenosum (PG) is a rare aseptic and destructive inflammatory cutaneous condition that have similar presentation than pocket infection after cardiac implantable electronic device (CIED) implantation which lead to delay specific treatment and worsening prognosis.

A 93 year old man with stable angina and preserved ejection fraction was implanted with a double chamber pace maker for sinus bradycardia, 2nd degree AV block and heart failure. On the 5th day post implantation, he developed a painful inflammatory and bleeding scar. On the 7th day, he had infectious syndrome with 39°C fever, and important inflammatory syndrome with neutrophils >41G/L, CRP 247mg/L. The wound were very inflammatory, painful, oozing and necrotic, of rapid evolution. Pocket infection was suspected and antibiotic’s was started after material explant and local samples for bacteriological and histological analysis on the 8th day. No growth was detected from the device. A clinical diagnosis of PG was suspected and confirmed histologically which found a major inflammatory infiltrate consisting of neutrophils, sometimes altered with small foci of connective necrosis, compatible with PG. High dose systemic corticosteroids were started on the 8th day post implantation and we observed a rapid favorable local and general evolution and complete healing after 2-month treatment. The analysis of the blood cell count is in favor of an underlying unknown hematopathy (chronic myelomonocytic leukemia), however the patient refused further investigations by myelogram. He also refused implantation of a new stimulator including a leadless pacemaker. 6 months after PG diagnosis, the patient is still alive, heart failure is controlled by medical treatment, there has been no recurrence of skin disorder.

PG is a rare aseptic and destructive neutrophilic inflammatory cutaneous condition whose pathogenesis is complex and not completely understood. It is triggered by minor trauma in 25% cases such as a surgical incision. It is associated in more than 50% of cases with a systemic inflammatory or an hematologic disease and the prognosis is poor, up to 30% of deaths in some cases series.

This diagnosis should be keep in mind as it may avoid unnecessary pacemaker extraction. The treatment is based on high dose systemic corticosteroids.
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PG is a rare pacemaker pocket complication, whose main differential diagnosis is infection, the often delayed diagnosis of PG must be evoked with an aseptic skin ulceration not controlled by antibiotic treatment. This diagnosis should be keep in mind as it may avoid unnecessary pacemaker extraction. The treatment is based on high dose systemic corticosteroids.