

Extensive Chronic Bilateral Limbs Erysipelas with Ulcerations in an Elderly Patient After a Myocardial Infarction, Refractory to Multiple Treatments Successfully Healed with a New Medical Device - II

Cueto-Garcia J^{1*}, Lugo DF² and Regan A¹

Health Sciences Faculty, University Anahuac and Department of Surgery, The American British Cowdray Hospital, Mexico City, Mexico

Universidad Anáhuac México Norte, Ciudad de México, México

*Corresponding author:

Jorge Cueto García,
Health Sciences Faculty, University Anahuac and
Department of Surgery, The American British
Cowdray Hospital, Mexico City, Mexico.

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1. Abstract

Erysipelas is a skin infection involving the dermis layer of the skin characterized by areas of erythema that usually requires a few days treatment and can involve the lower extremities. An elderly male patient was treated for an extensive chronic bilateral limbs Erysipelas, that was refractory to multiple local and systemic Antibiotic treatments during 11 months. This complication worsened and due to his limited capacity to move, the patient fell and suffered 2 hip injuries that required surgery.

2. Case Report

G.H.W., an 81-y. o., Caucasian male patient was seen in the office with his relatives on 05-17-2023, awake, oriented, 11 months after being treated daily for bilateral limbs erysipelas refractory to several types of "Antibiotic treatments" provided by Dermatologists, specialized nurses, visits to Dermatological Clinics, using different antimicrobials -both local and parenteral-, and that required short hospitalizations for debridement with no improvement. He had suffered a myocardial infarction 9 years previously and in addition, an intravenous pacemaker was placed 4 years later. A Medical Laboratory profile revealed a CBC with 13,000 mm³, Glucose 100 mg %, rest of Laboratory tests were normal. At Physical examination: Vital signs: B.P. 140/88, regular pulse 80/ min., 16 min.,

and he stated that he felt weak with "heaviness in both legs", but without pain nor acute distress. Chest and Abdomen were normal at physical examination. He had been on daily Aspirin 100 mg., 1 tablet of for anticoagulation that his Cardiologist prescribed for his pacemaker and Acetaminophen 2-3 tablets for pain control, when needed.

Physical Exam of the lower limbs showed extensive Erysipelas in both legs with 2 - 3 + edema (worse in the right leg), cellulitis and a long (18 cm) painful purulent ulceration in the anterior aspect of the right leg, (Figure 1, 2), and during the initial cleansing and debridement of this extensive ulceration, Xylocaine spray needed to be applied often. Once this had been done, we applied an abundant amount of the Medical Device-II (Polymer Polysaccharide with Zinc Oxide®) to cover the ulcer and 2-3 cm in the areas of cellulitis, and the family that observed the application, was instructed that every day after the morning shower, to apply daily this adhesive gel in the entire area of ulceration and 2-3 cm outside the border with cellulitis, and after 3 minutes, an humectant Petroleum gauze should be applied to cover the entire area and return to the office a week later. During the treatment, in the 3rd week, a definite improvement was noticed (Figure 3), but due to pain and limitations for moving around in his bedroom, the patient fell off and fractured his right hip that required surgery that was successful

and 3 weeks later a femoral prosthesis was placed in the left hip due to severe wear producing constant pain and also recovered successfully, and the orthopedic surgeon, a physiotherapist and family members provided daily exercises and the patient healed completely. Once the treatment was carried out -with a meticulous help from the family-, the leg ulcer pain subsided in the 1st week, he did not required analgesics, he recovered his appetite, and was able to walk with assistance and do the exercises prescribed by the orthopedic surgeon.



Figure 1



Figure 2



Figure 3



Figure 4

3. Discussion

Erysipelas frequently referred to as “St. Anthony’s Fire” due to its symptoms and intense fiery rash [1]. The most common cause is group A streptococci (*Streptococcus pyogenes*). *Staphylococcus aureus*, including methicillin-resistant strains (MRSA), *Streptococcus pneumoniae*, *Klebsiella pneumoniae*, *Yersinia enterocolitica*, and *Haemophilus influenzae* have also been found rarely to cause erysipelas. Skin infection spreads through a break in the skin, directly invading the lymphatic system and causing erysipelas. Insect bites, stasis ulceration, surgical incisions, and venous insufficiency have been reported as portals of entry to the skin. Some risk factors that predispose people to develop erysipelas are obesity, lymphedema, athlete’s foot, leg ulcers, eczema, intravenous drug abuse, poorly controlled diabetes, and liver disease. Recurrent erysipelas has also been reported, with the infection typically reoccurring in the same site.

Clinically, erysipelas can be serious but rarely fatal, and usually have a rapid and favorable response to antibiotics [1]. Penicillin is usually prescribed and the patient carries out the treatment at home. Local complications are more common than systemic complications and Erysipelas complicates the chronic presence of intravascular devices such as catheters of different types, which may be related to his Intravenous Pacemaker placed in this elderly, and complicated patient. No laboratory workup is required for the diagnosis of erysipelas. Leukocytosis, elevated ESR and C-reactive protein are common but will not change the management or the treatment plan for most otherwise healthy individuals. Blood cultures have a low yield and are not routinely obtained; however, consider blood work and culture in the immunocompromised, ill-appearing patient. Also, consider extensive workup in patients who may be intravenous drug abusers, patients with prosthetic heart valves, and those with other intravascular devices. There are diseases that can mimic erysipelas [7]; all of which present with erythema, warmth, edema, and pain. Some of the more serious diagnoses include septic bursitis, septic arthritis, necrotizing fasciitis, orbital cellulitis, deep vein thrombosis, phlegmasia cerulea dolens, flexor tenosynovitis, and toxic shock syndrome.

Less serious diagnoses include cellulitis, abscess, felon, gout, and paronychia.

In the case herein reported, emphasis has been made to indicate that these elderly very sick patient has a family most interested in helping, caring and devoting hours and hours close to him every day for several months. They all became concerned when after the serious cardiac event and the pacemaker procedure, the legs ulcers did not respond to the usual treatments, and we cannot describe the types of antibiotics prescriptions given nor the duration of each regime for they were not sent to us, but they consulted specialized clinics nurses and Dermatological clinics without any improvement. At a short Hospital stay a surgical debridement was done without improvement and at the 7-8 months of this complicated course of treatments, we were asked to see the patient by a renowned dermatologist whom we had worked many complicated cases during several years [2,3]. Several groups including ours, have reported the clinical finding that when patients with chronic leg ulcers were cared for at home in the manner just described, the prognosis is much improved, better compliance with the treatment, better nutrition, and healing times are reduced as are the family expenses which is extremely important when it is known that many chronic leg ulcers, are frequently experienced by families in lower social levels [3-5]. Previous reports have shown that the P.P.Z.O., has potent anti-inflammatory effects and reduces infiltrate of several pro-inflammatory cells, such as mononuclear cells in experiments carried out in in vivo murine models and also, antimicrobial properties even in cases where the responsible causative agent is a multi-resistant bacterium to the most commonly prescribed antimicrobials used everywhere [6].

Erysipelas is also referred to as “St. Anthony’s Fire” due to its intense fiery rash. Its diagnosis can overlap with cellulitis, and often a definite diagnosis cannot be made. Cellulitis has ill-defined borders and is slower to develop, while erysipelas has better-defined borders and faster development [1]. Erysipelas can be serious but rarely fatal. It has a rapid and favorable response to antibiotics. Local complications such as ulcerations are more common than systemic complications and more frequent in elderly and/or immunocompromised patients.

The most common cause is group A streptococci, while non-group A streptococcus involves more of the lower extremity and usually respond rapidly to appropriate antibiotic therapy. In the typical Erysipelas oral Penicillin is usually the treatment successful after 5 days of treatment and the treatment is usually carried out at home.

4. Conclusion

Although the diagnosis and treatment of Erysipelas is usually straightforward, in chronic debilitated patients particularly with venous invasive procedures, the lower limbs can be involved, and the treatment presents a different risk. P.P.Z.O., a Medical Device-II is very well tolerated even in elderly debilitated patients,

has potent Anti-Inflammatory and Antimicrobial properties and has produced excellent results in the treatment of different types of Chronic Leg Ulcers and its application in this patient refractory to numerous antibiotic treatments proved to be successful.

References

1. Michael Y, Shaukat NM. Erysipelas. In StatPearls. National Center for Biotechnology Information. 2023.
2. Moreno MA, Nieto N, Espinosa L, Torres Y, Montoya A, Cueto J, et al. March 2014. Potent Anti-inflammatory activity of carbohydrate polymer with zinc oxide of zinc. Hindawi Publishing Corporation, BioMed Research International. 2014.
3. Moreno-Eutimio MA, Espinosa-Monroy L, Orozco-Amaro T, Torres-Ramos Y, Montoya-Estrada A, Hicks JJ, et al. Enhanced healing and anti-inflammatory effects of a carbohydrate polymer with zinc oxide in patients with chronic venous leg ulcers: preliminary results. Archives of Medical Science. 2015.
4. Suárez D, Franco D, Rey R, Mena T, Cueto J. Successful healing of two very large pelvic-perineal chronic fistulized ulcers in a patient with congenital myelomeningocele treated with a carbohydrate polymer with zinc oxide: case report. Journal of Dermatology Research Reviews & Reports. 2023; SRC/JDMRS-156,4(2):1-3.
5. Cueto J, Ochoa R, Bert E. Multi-traumatized patient with a dehiscent fistulized abdomen and a central venous line-associated infection successfully treated with a new medical device II. Annals of Clinical and Medical Case Reports. 2022; 9(1): 1-3.
6. Bello-López JM, López-Ornelas A, Vilchis-Rangel RE, Ribas-Aparicio RM, Del Moral P, Donis-Rocandio JE, et al. In vitro bactericidal activity of a Carbohydrate Polymer with Zinc Oxide for the treatment of chronic wounds. Journal of Medical Microbiology. 2020; 69: 874-880.
7. Blumberg G, Long B, Koyfman A. Clinical Mimics: An Emergency Medicine-Focused Review of Cellulitis Mimics. J Emerg Med. 2017; 53(4): 475-484.