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OPINION ARTICLE

Ertapenem for the treatment of Hidradenitis suppurativa: how much do we need it?☆

Ertapenem para el tratamiento de hidradenitis supurativa: ¿en qué medida lo necesitamos?

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Hidradenitis suppurativa (HS) is a chronic, recurrent and debilitating skin disease of the hair follicle that can be accompanied by systemic inflammation. Many systemic drugs prescribed in HS lack robust evidence supporting its use and personalized therapy must guide the therapeutic decision process. The aim of this letter is discussing the clinical relevance of ertapenem in the control of this chronic disease.

The evidence supporting its use is based on a single retrospective study in which Join-Lambert *et al* demonstrated the efficacy of a 6-week course of intravenous ertapenem followed by consolidation therapy with a triple AB regimen (rifampicin/moxifloxacin/metronidazole) in severe HS patients (LOE IV, SOR C).[1] Thirty consecutive patients with severe HS were retrospectively included, having received a 6-week course of intravenous ertapenem (1 g daily) followed by 12-week consolidation phase: a 6-week course of rifampicin 10 mg/Kg once daily/moxifloxacin 400 mg once daily/metronidazole 500 mg 3id and a final 6-week of rifampicin and moxifloxacin alone. At 6 months, 16/30 patients had received continuous ''consolidation treatments'' with other antibiotics after ertapenem; the other 14/30 were either lost to follow-up or received intermittent ''consolidation treatments''.[1] The authors state that clinical remission was obtained for 100% of Hurley stage I lesions, 96% of Hurley stage II lesions and 27% of Hurley stage III lesions, concluding that a 6-week course of ertapenem can significantly ameliorate severe HS and that consolidation treatments are essential for further improvement and preventing relapses. The complexity of the study design and the obvious need of further AB to prevent/treat flares after the ertapenem induction phase may raise doubts about the long-term effectiveness of this therapeutic choice.

Ertapenem and other carbapenemes have a broad-spectrum antibacterial activity, being active against many aerobic and anaerobic gram-positive and gram-negative organisms with a major impact on the gut flora. Resistance in Gram-negative bacteria is increasing at an alarming rate and β-lactamases-mediated carbapenem resistance has now become a serious clinical issue and a public health

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threat worldwide.[2] In the late 20th century, many resistant Gram-negative infections were treated with carbapenems as single therapeutic agents but that overuse of carbapenems resulted in a 69% increase in imipenem-resistant *P. aeruginosa*.[3] Today we are seeing a global dissemination of new multiple broad-spectrum beta-lactamases and multidrug-resistant *Enterobacteriaceae*.[2]

The use of topical and systemic antibiotics in HS patients is associated with antimicrobial resistance.[4] In our perspective, the therapeutic strategy when treating HS must be decided on an individual basis and rely on short-term treatments to control flares and long-term treatments to control persisting inflammation. Ertapenem is a β-lactamic carbapenem with no anti-inflammatory properties; in fact, it induces bacterial lysis and promotes inflammation.[5] Therefore, its effect in improving HS can occur, but mainly through antibacterial mechanisms and should be reserved to control suppurative flares only, i.e., superinfection of HS lesions. Given the risk of randomly using a broad-spectrum AB like ertapenem, determining which seriously affected HS patients would benefit from it is essential. As ertapenem's mode of action is only antibacterial, microbiologic studies with antibiogram analysis should guide the prescribing clinician when considering using this drug.

In fact, if a suppurative flare is resistant to tetracyclines or rifampicin/clindamycin combination,[6] two actions should be taken into account before considering any broader spectrum antibiotic: to take optimal cultures and to reassess the non-responding skin areas as HS structures such as scarring fistulas are unresponsive to medical therapy and require a surgical intervention.[7,8] Recent studies adding color Doppler ultrasound to improve the accuracy of clinical examination have confirmed that it can significantly modify HS management because of clinical underestimation of severity,[9,10] prompting an earlier combination of medical and surgical treatments.

We believe that antibiotics play a very important role in treating superinfection and should be generally prescribed to control flares, in the short-term management of HS. Long-term management should include a personalized combination of medical and surgical strategies, preferably using ultrasound to accurately characterize HS lesions/extension and monitor response to therapy.

Conflict of Interes

P. Mendes-Bastos has worked as an investigator in clinical studies supported by Abbvie and has been paid as a speaker in events supported by Abbvie. A. Martorell and S. Magina declare no conflicts of interest.

References

1. Join-Lambert O, Coignard-Biehler H, Jais J, Delage M, Guet-Revillet H, Poirée S, et al. Efficacy of ertapenem in severe hidradenitis suppurativa: A pilot study in a cohort of 30 consecutive patients. J Antimicrob Chemother. 2016;71:513–20.
2. Logan L, Weinstein R. The epidemiology of carbapenem-resistant Enterobacteriaceae: The impact and evolution of a global menace. J Infect Dis. 2017;215 Suppl 1:S28–36.
3. Rahal J, Urban C, Horn D, Freeman K, Segal-Maurer S, Maurer J, et al. Class restriction of cephalosporin use to control total cephalosporin resistance in nosocomial Klebsiella. JAMA. 1998;280:1233–7.
4. Fischer A, Haskin A, Okoye G. Patterns of antimicrobial resistance in lesions of hidradenitis suppurativa. J Am Acad Dermatol. 2017;76:309–13.
5. Van Vlem B, Vanholder R, De Paepe P, Vogelaers D, Ringoir S. Immunomodulating effects of antibiotics: Literature review. Infection. 1996;24:275–91.
6. Gulliver W, Zouboulis C, Prens E, Jemec G, Tzellos T. Evidence-based approach to the treatment of hidradenitis suppurativa/acne inversa, based on the European guidelines for hidradenitis suppurativa. Rev Endocr Metab Disord. 2016;17:343–51.
7. Martorell A, García F, Jiménez-Gallo D, Pascual J, Pereyra-Rodríguez J, Salgado L, et al. Update on hidradenitis suppurativa (part II): Treatment. Actas Dermosifiliogr. 2015;106:716–24.
8. Janse I, Bieniek A, Horváth B, Matusiak L. Surgical procedures in hidradenitis suppurativa. Dermatol Clin. 2016;34:97–109.
9. Martorell A, Segura-Palacios J. [Ultrasound examination of hidradenitis suppurativa]. Actas Dermosifiliogr. 2015;106 Suppl 1:49–59.
10. Wortsman X, Moreno C, Soto R, Arellano J, Pezo C, Wortsman J. Ultrasound in-depth characterization and staging of hidradenitis suppurativa. Dermatol Surg. 2013;39:1835–42.