

Figure 1 Timeline of duration of therapy until a diagnosis of agranulocytosis was made

presentations of patients with dapsone-induced agranulocytosis, including perianal pain, which should be actively inquired about.

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Guidelines for the management of hidradenitis suppurativa: recommendations supported by the Centre of Evidence of the French Society of Dermatology

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Dear Editor, Hidradenitis suppurativa (HS) is a painful chronic inflammatory skin disease that impacts quality of life substantially. Its prevalence is estimated to be 0.7%. Various pathophysiological hypotheses exist, but there is no therapeutic consensus, which complicates the management of patients with HS.

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Pain management, psychological management, weight loss, smoking cessation **Hurley I Hurley III Hurley II** Suggest the same regimen as for Hurley I ≥ 4 flares per year Specialized multidisciplinary care < 4 flares per year ≥ 4 flares per year **During flares** Preventive treatment In cases of failure - Ceftriaxone 1 g/d (if < 60 kg) to 2 g/d (if ≥ 60 kg) (IV, - Clavulanic acid amoxicillin - Cyclines (doxycycline 100 mg/d*** or lymecycline 300 Specialized multidisciplinary care** 50 mg/kg/d (1g 3/d; maximum 4·5 g) IM or SC) + metronidazole (500 mg x 3/d) mg/d) or ymesysmic os mg/d) oR - Co-trimoxazole* 400/80 1/d*** - Levofloxacin (500 mg 1-2x /d) + clindamycin (600 mg Pristinamycin (1g 3/d) Wide excision of bands and sinus tracts or marsupialization x 3/d) For 15–21 days For 7 days Re-evaluation at 6 months and/or Follicular form Adalimumab**** During flares Add the proposed antibiotic therapy for Hurley I < 4 flares Surgery Wide excisi Preventive treatment - Cyclines (doxycycline 100 mg/d ***or 160/80/40 per week lymecycline 300 mg/d) OR Infliximab 5 mg/Kg Co-trimoxazole* 400/80 Re-evaluation at 6 Provide prescriptions in advance months Re-evaluation at 6 months During flares incision drainage to relieve pain Suggest the same regimen as for Hurley I ≥ 4 flares per year In case of relapse at same location, limited excision **HS** associated with inflammatory In case of failure: retinoids - Isotretinoin 0·3-0·5 mg/kg - Alitetinoin 10-30 mg/d diseases (SpA, IBD) fusiform Or marsupialization Acitretin 0-5 ma/ka Preventive treatment - Adalimumab**** 160/80/40 per week *No improvement from baseline In case of failure In case of failure, intolerance or contraindication for cyclines (risk Adalimumab 160/80/40 per week**** - Infliximab 5 mg/Kg every 6–8 weeks***** Re-evaluation at 6 months OR - Infliximab 5 mg/Kg every 6 to 8 weeks***** Re-evaluation at 6 months Medical and surgical consultation meeting specifically on HS ** Double dose if weight > 80 kg *** Marketing authorization (MA) but not reimbursed in France

For all patients

Figure 1 French guidelines for hidradenitis suppurativa (HS) management: treatment algorithm for HS in adults. d, day; IV, intravenous; IM, intramuscular; SC, subcutaneous; PO, per os.

Therefore, the Centre of Evidence of the French Society of Dermatology initiated a standardized recommendation process for HS. A 13-member working group (WG) was formed, comprising dermatologists (A.B., E.S., M.M.-B., I.B.-V., N.J., J.-F.S.), a plastic surgeon (P.P.), an emergency physician (Y.Y.), an infectious diseases specialist (E.C.), a microbiologist (O.J.-L.), a psychologist (K.C.), a general practitioner (S.S.) and a patient representative from an HS patient association. Members had no conflicts of interest and a strict methodology was followed.² Firstly, a systematic review of the literature was performed to compile references from study inception to September 2018. Assistance was provided by the French National Health Authority medical health librarian (supporting information available on request from the author). Eight physicians specializing in methodology then extracted data from each report (supporting information available on request from the author) and analysed the methodology and risk of bias using the Appraisal of Guidelines for Research & Evaluation instrument for guidelines, the Assessing Methodological quality for Systematic Reviews tool for systematic reviews and the risk-of-bias tool for randomized controlled trials (Cochrane Collaboration).³ Observational studies were retained if they included more than 20 patients. Senior experts were interviewed and their comments were incorporated into the manuscript. Finally,

SpA: Spondyloarthropathy; IBD: Inflammatory bowel disease

recommendations were submitted to a multidisciplinary panel of 36 reviewers

The most important recommendations, supported by both evidence- and expertise-based data, were used to design a decision-making algorithm (Figure 1).

- (i) Hurley stage I or II use of amoxicillin/clavulanic acid or pristinamycin for 7 days; for preventive treatment or postacute care, co-trimoxazole or cyclines; for follicular HS ('punched-out' scars, ice-pick scars, follicular epidermal cysts, comedones and pilonidal sinus), oral retinoid.
- (ii) Hurley stage II or III ceftriaxone/metronidazole or levofloxacin/clindamycin for 15-21 days. Anti-tumour necrosis factor (TNF)- α can be proposed, but should be re-evaluated within 3-6 months. Specialized, multidisciplinary care (involving a dermatologist and a surgeon, at least) is recommended for severe cases.

A medicosurgical approach is strongly recommended for all patients, either after or in combination with medical steps. Surgery (assisted by ultrasounds, probes, etc.) is considered a curative treatment for specific lesions, but surgeons must fully understand the need to maintain adequate margins, as in skin carcinoma surgery, to achieve remission.

After final proofreading by the Centre of Evidence (O.C., M.B.-B)., the algorithm was published on a dedicated openaccess website to provide a user-friendly and practical tool featuring fast, step-by-step navigation according to clinical situations (https://reco.sfdermato.org/en/).

It should be noted that several of our recommendations differ from other guidelines (supporting information available on request from the author).

- (i) As topical antibiotics and antiseptics have a low level of evidence and present a high risk of bacterial resistance, the WG recommends the use of soap and water as an alternative.⁴
- (ii) For Hurley stage I or II, amoxicillin/clavulanic acid or pristinamycin (which act synergistically against Grampositive and anaerobic bacteria) for 7 days is recommended because of their antimicrobial spectrum covering bacteria associated with HS lesions, including anaerobes.
- (iii) Cyclines can be prescribed for preventive treatment or postacute disease, as proposed in other guidelines, but co-trimoxazole (at low doses) was suggested by the WG owing to its susceptibility rate, in addition to its immunomodulatory and anti-inflammatory properties.⁵
- (iv) The combination of oral clindamycin and rifampicin was not recommended for the following reasons: there is insufficient follow-up data in observational studies; enzyme induction reduces the level of clindamycin by 82%;⁶ clinicians have insufficient knowledge regarding the modalities of rifampicin absorption; and especially because of the risk of developing antibiotic resistance to this treatment.⁷
- (v) For Hurley stage II or III, an optimized combination of antibiotics with large spectral action on bacteria (ceftriaxone/metronidazole or levofloxacin/clindamycin)⁸ is recommended, as long as they are used at an antibiotic dose, for a maximum of 21 days and without any contraindication to the use of fluoroquinolone.⁵
- (vi) The WG considered the level of evidence insufficient to recommend a list of miscellaneous drugs, including intralesional corticosteroids, dapsone and ciclosporin.
- (vii) For HS associated with inflammatory diseases, such as Crohn disease or spondyloarthropathy, preventive treatment with anti-TNF- α is recommended, in agreement with gastroenterologists or rheumatologists.
- (viii) The WG highlighted the importance of following recommendations for complete wide margins during surgical management to achieve resection, taking the subclinical peripheral extension of HS lesions into account, in accordance with the model for oncological skin surgery.

HS is a chronic disease requiring long-term and multidisciplinary management that takes into consideration the pain and psychological impact, the different medical and surgical treatments available and the preservation of the microbial ecology.

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Supporting Information

Additional Supporting Information may be found in the online version of this article at the publisher's website:

File S1 Full list of affiliations and acknowledgments.

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