Algorithm for Hidradenitis Suppurativa (HS)

Children's National

HS has a high rate of co-morbidities that should be screened for at the time of diagnosis[1]

HPI/ROS findings – Ask screening question: *Have you had 2 or more outbreaks of boils in the last 6-12 months in the axillae, groin, inframammary folds or buttocks?*

Treatment goal: Reduce scarring and development of new lesions while preventing progression of disease to improve symptoms and quality of life

Physical exam findings present – Examine intertriginous areas including the axilla, groin, neck, breasts and buttocks

Likely diagnosis of HS

Lifestyle modifications[2]: All treatment modalities should also include include adjunct therapy for pain management, weight loss, appropriate skin care

- No sinus tracts or scarring
- Flares are intermittent and can go weeks to months without any active lesions

Mild

Treatment for flares:
- Topical clindamycin 2x/day[3] **AND**
- Benzoyl peroxide 10% wash[3] **AND**
- Oral doxycycline 100mg 2x/day x 2 weeks

Improvement

Flares are common and may occur at same or different site. Re-treat with previously effective therapy and continue to monitor for progression of disease

- Stop doxycycline
- Start zinc gluconate 50mg 2x/day x 12 weeks AND continue maintenance therapy of choice
- Monitor for disease progression

- Multiple flares of lesions per month, or always with at least one lesion active
- May have no scarring or have signs of spaced out scars or a single sinus tract/ tunnel

Moderate

Treatment:
- Topical clindamycin 2x/day[3] **AND**
- Benzoyl peroxide 10% wash[3] **AND**
- Oral doxycycline 100mg 2x/day x 2 weeks **AND**
- Maintenance therapy of choice

Consider dermatology referral

No improvement

ADD

- Oral doxycycine 100mg 2x/day x 12 weeks[4] **AND**
- Maintenance therapy
  - Metformin 500mg 2x/day for men and women **OR**
  - Spironolactone 50mg 2x.day for women **OR**
  - OCPs[5] for women
- If comorbid menstrual flares and/or irregularities present, screen for PCOS[6] and favor hormonal therapies for women
- Consider dermatology referral for all

Improvement

No improvement

ADD

- Refer to dermatology +/- HS multi-disciplinary clinic
- Consider change or addition of maintenance therapy
- Consider starting clindamycin 300mg 2x/day **AND** rifampin 300mg 2x/day, both x 12 weeks4

- Multiple flared lesions at any given time
- Interconnected sinus tracts and abscesses throughout affected area

Severe

Treatment:
- Topical clindamycin 2x/day[3] **AND**
- Benzoyl peroxide 10% wash[3] **AND**
- Oral doxycycline 100mg 2x/day x 2 weeks **AND**
- Maitenance therapy of choice

Refer directly to HS multi-disciplinary clinic

Additional treatment options for refractory or severe disease:
- Differing combination of topical/oral agents
- Biologic agents
- Laser therapy
- Surgical procedures

Routine incision and drainage **NOT** recommended for acute symptomatic lesions, unless obviously fluctuant with a definite large fluid collection[7]

#	Subject	Description
1	Associated co-morbidities	HS has a very high co-morbidity burden, with newer guidelines recommending that the following systems should be screened for at the time of diagnosis: • **Metabolic (obesity, dyslipidemia, hypertension, metabolic syndrome)** – Exam: BMI, blood pressure – Labs: fasting lipid panel, hemoglobin A1c, fasting blood glucose • **Endocrinologic (diabetes, PCOS, precocious puberty/premature adrenarche)** – History: menstrual irregularities – Exam: PCOS screening (signs of hyperandrogenism), signs of precocious puberty – Labs: PCOS screening labs if appropriate • **Psychiatric (depression, anxiety, substance use disorder)** – History: PHQ-2 and/or PHQ-9, GAD-7, AUDIT-C questionnaire/opioid risk tool • **Inflammatory conditions (inflammatory bowel disease, spondyloarthritis)** – History: arthritis and inflammatory bowel disease screening questions – Labs: IBD screening labs if appropriate • **Dermatologic (acne, pilonidal disease, dissecting cellulitis of scalp, pyoderma gangrenosum)** – Exam: Full skin exam Management and referrals to appropriate specialists if needed should be pursued if signs of these conditions are found.
2	Lifestyle modifications	Lifestyle modifications include weight management counseling with exercise and nutrition recommendations. **Weight loss** of 5-10% is the best supported modification. Other lifestyle modifications include counseling to: • Consider avoiding antiperspirant and using deodorant only, or switching to spray • Wash affected areas gently with fingers; do not scrub with washcloth or brush • Avoid overly tight clothing • Smoking/vaping cessation • NSAIDs or corticosteroids can be considered in short courses to reduce pain and inflammation • Avoid popping/draining new forming lesions[7]
3	Topical therapy	• **Topical clindamycin 1% solution** may help to reduce inflammatory lesions and pustules – Clean involved area with soap and water, dry, and apply the 1% clindamycin solution with fingertip 2x/day in skin areas subject to recurrent flares for **3 months** • **Benzoyl peroxide 10% antiseptic wash** must be used in conjunction with topical clindamycin to prevent Staph aureus resistance • Other antiseptic washes that can be alternated daily with benzoyl peroxide include: – Chlorhexidine gluconate 4% – Shampoo containing zinc pyrithione 1%
4	Long-term oral antibiotics	**Long-term oral antibiotics** have been shown to improve HS, although the mechanism is not definitively known. Patients who achieve satisfactory disease control may stop and then use zinc gluconate 50mg 2x/day for longer disease-free remission. a. **Oral doxycycline** 100mg 2x/day for **3-6 months (at least 3 months** prior to assessing response). **Strongly encourage patients to take this with a full meal to improve tolerability.** Not recommended for pediatric patients under the age of 9. Refer younger patients with HS to dermatology sooner for management. b. **Oral clindamycin** 300mg 2x/day plus rifampin 300mg 2x/day for **12 weeks** as second-line therapy if patients fail to respond to doxycycline.

#	Subject	Description
5	Antiandrogenic agents	Some female patients have noted menstrual variation in their HS, indicating a role of hormones in HS. **Antiandrogenic therapy** in women seem to have a stronger response compared to antibiotic use. **Antiandrogenic agents should NOT be given to pregnant women because of the risk for adverse effects on the fetus.** Always conduct a pregnancy test before considering use of antiandrogenic agents. • **Oral contraceptive pills (OCP)** improve clinical symptoms – **Ethinyl estradiol** 50 mcg (cycled days 5 to 25) and **cyproterone acetate** 50mg (cycle days 5 to 14) for **6 months** – **Ethinyl estradiol** 50mcg and norgestrel 500mcg (cycle days 5 to 25) daily for **6 months** Administration of combined OCPs containing ethinyl estradiol are key. Progesterone-only hormonal therapies can trigger or worsen HS, and it is recommended to switch to a different therapy if an HS patient is already on a progesterone-only agent. • **Spironolactone** for HS associated with improvement in pain, lesions, and disease severity, especially for patients with PCOS. – Start with 25mg/day and go up to 100mg/day for **at least 3 months**
6	Metformin	Insulin-resistance may contribute to HS, and **metformin** has shown benefit in HS along with modest weight loss for patients with obesity, particularly those with metabolic syndrome, PCOS or diabetes. 500mg initial dose 2x/day with food and titrate 500mg 1x/day x 1-2 weeks to minimize side effects, then increase to 500mg 2x/day **for at least 3 months**
7	Acute symptomatic lesions	• When patient has new forming lesion, counsel patient to intermittently apply **warm compress** over area for 10 minutes at a time throughout the day. This can improve symptoms of inflammation. • If **lesion starts to drain** on its own, keep wound clean and wash gently with antiseptic wash. Cover the skin with **petroleum jelly** to avoid dressing from sticking to the wound, and clean/change dressing daily until wound heals. – Adhesive tape should be avoided if possible, and instead an absorbent material should be held in place in a way that minimizes skin trauma, such as an elastic fishnet dressing. – If lesion continues to be painful and inflamed, instruct patient to call doctor to discuss additional methods for treating acute symptomatic lesions. • Additional interventions by dermatology: **intralesional corticosteroid injections** (triamcinolone 10mg/mL), **punch debridement** (partial unroofing) and **topical resorcinol** (topical 15% resorcinol).

Sources:
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