Cryoinssufflation for Hurley Stage II Hidradenitis Suppurativa: A Useful Treatment Option When Systemic Therapies Should Be Avoided

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Report of a Case
A woman in her 30s presented with hidradenitis suppurativa (HS), Hurley stage II. She was treated with oral contraceptives (drospirenone/ethinyl estradiol), spironolactone (50 mg/d), topical clindamycin, and monthly intralvesional corticosteroids (triamcinolone acetonide, 10 mg/mL). Previously, she had received rifampicin (600 mg/d), first with minocycline (100 mg/d), then with clindamycin (300 mg/d), and finally with moxifloxacin (400 mg/d). After these treatments failed, she received isotretinoin (0.5 mg/kg/d) for 2 more years to achieve remission, but without success.

Because she had decided to become pregnant, she was searching for an alternative treatment, devoid of teratogenic effects, to safely replace oral contraceptives. Effective therapy was paramount because the HS seriously interfered with sexual intercourse and indirectly with her planned pregnancy. Surgical treatment was offered (local incision and drainage, deroofing, limited local or wide excision), which she declined.

Therapeutic Challenge
Both neonatal outcome and maternal health are important in this case; fetal exposure can occur prior to knowledge of pregnancy, and during the first trimester, the fetus is most susceptible to teratogenic damage. Because the patient decided to discontinue taking oral contraceptives to become pregnant, acitretin, which is more effective than isotretinoin,1 is contraindicated. Both treatments are highly teratogenic, and pregnancy should be avoided for at least 3 years following discontinuation of acitretin treatment.

Although antibiotics are widely used to treat HS, few are safe in pregnant women. Physicians are usually reluctant to prescribe a prolonged course of systemic antibiotics for women with HS who are trying to conceive. The teratogenicity of the treatment is often deemed to impart greater risk than the disease itself. HS which is not thought to increase fetal morbidity, compared with hypertension or diabetes.

Finally, manufacturers of anti–tumor necrosis factor (TNF) advise discontinuation of treatment with these agents prior to a planned pregnancy, although anti–TNF therapies (infliximab, etanercept, adalimumab) are in fact pregnancy category B drugs. And even if systemic medications had been considered completely safe, our patient perceived them to be harmful, which ruled them out and restricted the treatment choices to surgical procedures, intralesional corticosteroids, and less effective treatments such as cryotherapy2 and topical agents. The patient refused both minor (local incision and drainage, deroofing) and major surgical treatment (limited local or wide excision). While intralesional cortico-

Solution
To control the HS symptoms for our patient and discontinue her systemic medical therapy, we proposed cryoinsufflation (CI), a modified spray cryotherapy performed by injecting liquid nitrogen (LN) through an ordinary needle directly into HS tracts.

After the patient provided written informed consent, she underwent local anesthesia with lidocaine hydrochloride, 1%. Abscesses and sinus tracts in the HS-affected areas were filled with LN using a 21-gauge needle mounted on a cryosurgical unit (CRY-AC; Brymill Cryogenic Systems Ltd) equipped with the CRY-AC Malleable Extension and Luerlok Adaptor for CRY-AC. The ossa of the sinocutaneous fistulas were cannulated, and LN was sprayed into the fistula track.

As the LN enters infected sinuses, it boils and vaporizes. Because of the large expansion ratio of liquid to gas, it quickly disperses into all communicating pockets and is expressed like a geyser. Pulsing each spray to avoid an overexpansion of the treatment site helps to prevent excessive pain and the formation of iceballs, recognized by the appearance of a white rim around the insertion point of the needle. We suggest a 5-second pulse followed by a 1-second pause, repeated 3 times for each lesion. Monthly treatment sessions allow for focused scarring to replace sinuses and cause minimal damage to the skin surface.

We treated the patient with 3 monthly treatment sessions. No recurrence was observed after 6 months. Of note, neither hypopigmentation nor scarring was observed and the patient was very satisfied with the results (Figure).

We also treated a second patient, a man in his 30s with HS, Hurley stage III, and myelodysplastic syndrome. He had previously been treated with local excision but experienced early recurrence and developed drug-induced leucopenia 1 month after starting treatment with rifampicin, 300 mg/d, plus minocycline, 50 mg/d. He declined further surgical treatment, and his hematologist advised against another course of antibiotics, acitretin, or TNF inhibitors. We treated him with monthly sessions of CI, achieving complete symptom control without the use of systemic drugs (Video).

All needles used in this procedure are disposable, and they are changed for every patient to prevent disease communication. Immediately after treatment, there was no blister formation, and the pain was acceptable. Paracetamol administered for the first 24 hours fully relieved any delayed discomfort; a vaginal reaction with nausea, sweating, and weakness was the only adverse effect experienced...
Cryoincision for Hidradenitis Suppurativa

ARTICLE INFORMATION

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REFERENCES


