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ARTICLE



Crystallized phenol for sacral hidradenitis suppurativa

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ABSTRACT

Objective: Multiple treatment options for hidradenitis suppurativa (HS) have been suggested; none 100% successful. We assessed crystallized phenol treatment (CPT) for sacral HS.

Methods: Twenty-five patients with sacral HS were enrolled. HS severity was assessed by Hurley Score and HS-Physician's Global Assessment (HS-PGA). All the leaking openings were dilated by a thin mosquito clamp after local anesthesia. Any hair present was removed, and phenol was applied.

Results: Patients were followed-up for a mean 36.8 months. The mean number of CPT application was 3.98. After CPT mean Hurley score decreased from 2.1 ± 0.68 to 1.2 ± 0.4 and HS-PGA score from 3 ± 1.22 to 0.72 ± 8.4 ($p = .01$). Recurrence was seen in 10 patients during follow-up period but they were re-treated with CPT.

Conclusion: CPT may be useful as a first-line treatment of sacral HS.

ARTICLE HISTORY

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KEYWORDS

Hidradenitis suppurativa;
crystallized phenol;
nonoperative treatment

Introduction

Hidradenitis suppurativa (HS) is a chronic, recurrent, inflammatory disorder of hair follicles in apocrine gland-bearing sites, resulting in abscesses and fistula formation (1). HS most commonly occurs in the axillary, inguinal, and anogenital regions in post-pubertal females (2).

Treatment of HS varies widely depending on disease severity. Many medications used to treat HS have limited efficacy and are associated with a high recurrence rate. Topical, systemic, and surgical therapies are available and are often used in combination. Medical treatments include topical resorcinol, topical and systemic antibiotics, hormonal management, and immunosuppressives (e.g. corticosteroids, cyclosporine, tumor necrosis factor alpha (TNF- α), and interleukin inhibitors) (3).

Crystallized phenol treatment (CPT) is a common conservative treatment for pilonidal sinus, with success rates as high as 95%. We tested the use of CPT in a treatment for sacral HS.

Materials and methods

The data record was examined of 25 patients who we thought sacral HS based on clinical impression and received CPT at Konya Training and Research Hospital's general surgery clinic between January 2009 and February 2017. We had recorded all of the positive features belonging to the disease and sacral region pictures with HS patients who we thought during first admission. Now we confirmed diagnosis of HS based on data record of all patients according to Zouboulis et al. criteria (4). Patients with missing data, not met the Zouboulis criteria, those who quit treatment, and those with less than 12-month follow-up were excluded. Informed consent was obtained from all patients. Demographic data, duration of the disease, family history, follow-up duration, healing time (weeks), and recurrence data were recorded. Hurley stage and HS-Physician's

Global Assessment Score (HS-PGA) were assessed and confirmed based on data record before and after the CPT (Table 1).

The patients were asked to remove their hair from the waist down to the middle of the femur with depilatory creams or by epilation a day before the procedure. The patients were placed in a prone position. Following the application of local anesthesia around the openings, all the leaking openings were dilated by a thin mosquito clamp. Any hair inside was removed. The anus was protected with a swab or cotton wool, and the rest of the area was liberally coated with nitrofurantoin ointment (Furacin[®], Eczacıbası Ilac, San ve Tic A.S., Istanbul, Turkey). Crystallized phenol (Botapharma Lab. Ankara, Turkey) was then applied inside the sinus by means of the same clamp. In cases with abscess, the abscess was initially drained, immediately followed by CPT. The patients were allowed to go back to their daily activities after the procedure.

Patients were called in for follow-up every 3 weeks following the first procedure. If any leakage was observed during follow-up examinations, the procedure was repeated. Following the completion of the treatment, the patients were asked to come in for yearly follow-ups. They were also encouraged to immediately contact their physicians if they had any problems during this period. The patients were also recommended to remove their hair once a month for 6 years, because of concern that such hair could penetrate lesions and increase infectious complications. Based on our experience in the treatment of sinus pilonidalis, hair removal once a month is sufficient (6,7).

Cure was regarded to be the elimination of pain and leakage and the closing of tunnels. Moreover, the restart of complaints after a minimum of 6 months following cure signified recurrence.

Statistical analysis

Descriptive statistics were used. The distribution of the variables was measured with the Kolmogorov-Smirnov test. The Mann-

Table 1. Hidradenitis Suppurativa – Physician’s Global Assessment (HS-PGA) (5).

Score	Explanation
Clear (score = 0)	No abscesses, no draining fistulae, no inflammatory nodules, and no noninflammatory nodules
Minimal (score = 1)	No abscesses, no draining fistulae, no inflammatory nodules but presence of noninflammatory nodules
Mild (score = 2)	No abscesses, no draining fistulae and 1–4 inflammatory nodules, or 1 abscess or draining fistula and no inflammatory nodules
Moderate (score = 3)	No abscesses, no draining fistulae and ≥ 5 inflammatory nodules, or 1 abscess or draining fistula and ≥ 1 inflammatory nodule, or 2–5 abscesses or draining fistulae and < 10 inflammatory nodules
Severe (score = 4)	2–5 abscesses or draining fistulae and ≥ 10 inflammatory nodules
Very severe (score = 5)	> 5 abscesses or draining fistulae

Table 2. Demographic data of patients.

	Min–max	Median	Mean \pm SD	N%	p
Age	29.0 – 56.0	41	40.4 \pm 2.0		.934
Sex					
Male			24	96%	
Female			1	4%	.405
Height (cm)	155 – 190	175	174.7 \pm 3.42	7%	.933
Weight (kg)	50,0 – 127.0	82.0	83.2 \pm 14.2		.933
BMI	21,9 – 38.8	26.8	27.4 \pm 1.10		.934
Duration of disease (month)	5 – 240	84.0	99.08 \pm 77.5		.210
Family history					
None			15	60%	
Yes			10	40%	.09
Smoking Status					
None			1	4%	.405
Yes			24	96%	

SD: Standard deviation; Min: minimum; Max: maximum; N: number of patients.

Table 3. Diagnostic criteria of patients, HS-PGA, and Hurley Scores before and after CPT.

Patient number	Diagnostic criteria*	Pretreatment HS-PGA**	Posttreatment HS-PGA**	Pretreatment Hurley	Posttreatment Hurley	Recurrence
1	2	1	0	2	1	Yes
2	2	2	0	2	1	None
3	1	1	0	1	1	Yes
4	1	2	0	1	1	Yes
5	1	3	2	2	2	None
6	1	3	1	3	1	Yes
7	2	3	1	2	1	None
8	1	3	1	2	1	Yes***
9	1	3	1	2	1	None
10	1	3	1	2	1	Yes
11	1	3	0	2	1	None
12	2	5	1	3	2	None
13	1	5	0	2	1	Yes
14	1	3	1	2	1	None
15	2	3	0	2	1	Yes
16	1	3	0	3	1	None
17	2	5	2	3	1	Yes
18	1	1	0	1	1	None
19	2	5	2	3	2	None
20	1	2	0	1	1	None
21	1	3	0	3	1	None
22	1	5	3	3	2	None
23	1	3	1	3	2	None
24	1	2	0	2	1	None
25	1	3	1	2	1	Yes
Mean \pm SD (Min–Max)		3 \pm 1.22 (1–5)	0.72 \pm 0.84 (0–3)	2.1 \pm 0.68 (1–3)	1.2 \pm 0.4 (1–2)	
p			p = .01		p = .01	

*Diagnosis of HS if: 1: all three obligatory criteria are present; 2: one or more obligatory locations are involved; 3: one or more types of obligatory lesions are present (i.e. nodule, abscess, fistula/sinus, scar) (8).

**Hidradenitis Suppurativa – Physician’s Global Assessment Score (HS-PGA): 0: clear; 1: minimal; 2: mild; 3: moderate; 4: severe; 5: very severe. Mann-Whitney U test was used. SD: standard deviation; Min: minimum; Max: maximum.

Whitney U test was utilized for the analyses of quantitative independent data. The chi-square test was used for the analyses of qualitative independent data, while Fischer’s Exact test was conducted when the conditions of the chi-square test were not met. Pearson correlation analysis was used for the analysis of sequential data. SPSS 22.0 software was used.

Table 4. Evaluation of pre and posttreatment CPT HS-PGA and Hurley scores according to recurrence of patients.

	Recurrence		p
	None N/%	Yes N/%	
Pretreatment HS-PGA			
0	0%/0	0%/0	.786
1	1%/4	2%/8	
2	3%/12	1%/4	
3	8%/32	5%/20	
4	0%/0	0%/0	
5	3%/12	2%/8	
Pretreatment Hurley			
1	2%/8	2%/8	.328
2	7%/28	6%/24	
3	6%/24	2%/8	
Posttreatment HS-PGA			
0	7%/35	5%/20	.694
1	5%/20	4%/20	
2	2%/8	1%/4	
3	1%/4	0%/0	
4	0%/0	0%/0	
5	0%/0	0%/0	
Posttreatment Hurley			
1	10%/40	10%/40	.05
2	5%/20	0%/0	
3	0%/0	0%/0	
Toplam	15%/60	0%/40	

HS-PGA: Hidradenitis Suppurativa – Physician’s Global Assessment Score; CPT: crystallized phenol treatment; N: patient number.

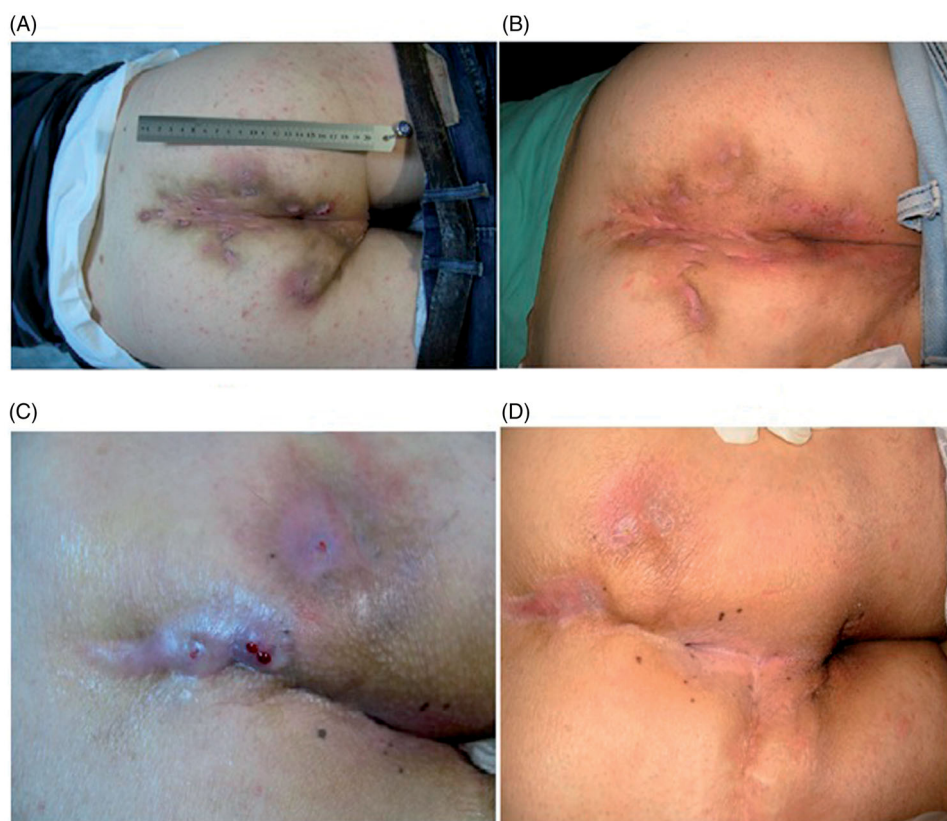


Figure 1. Pre and post-CPT images of patients. (A) and (C) Pretreatment CPT images. (B) and (D). Posttreatment CPT images.

Results

Twenty-four (96%) patients were male (Table 2). The mean age was 40.4 and mean BMI was 27.4. The mean duration of disease was 99 (2–240) months.

The patients were followed-up for 12–120 months (mean 36.8 months). The mean number of CPT application was 4.0 (min-max: 2–9) while the mean healing time was 25 weeks. Ten patients (40%) had recurrence. Nine of these were cured after reapplication of CPT. A second recurrence was seen in only one patient and after a re-CPT, he was also treated. There was no relation between Hurley and HS-PGA severity of patients after CPT and recurrence ($p > .05$).

The mean Hurley scores of the patients before CPT were 2.1 ± 0.68 which decreased to 1.2 ± 0.4 after CPT ($p = .01$) (Table 3). The mean HS-PGA score before CPT was 3.0 ± 1.2 and decreased to 0.72 ± 0.84 after treatment ($p = .01$). Eight (32%) patients had a Hurley score of 3 before CPT, but no patients had a Hurley score of 3 after CPT (Table 4).

Discussion

HS is difficult to manage. Antibiotics, topical, and systemic are the mainstay treatment for mild (Hurley I and mild Hurley II) HS, although only two randomized controlled trials have been conducted to determine the efficacy of antibiotics (9,10). Topical resorcinol is an alternative treatment. Its use is limited because it may be absorbed percutaneously and discoloring effect. It cannot be used during pregnancy (8,11–13). TNF- α inhibitors are effective for HS but are costly. Surgery is the only curative therapy for HS, serious wound care and cosmetic problems may accompany these procedures.

Based on effectiveness of CPT for pilonidal sinus disease we assessed CPT for sacral HS. CPT is a simple method with few side effects and one that does not require long-term hospitalization, causes minimal work disturbance, and necessitates minimal wound care (Figure 1). None of the patients developed side effects during our study.

Limitations of our study included that we only assessed sacral disease so we cannot know the effect of CPT in the other regions of the body. We were not able to determine at which stage CPT was more effective because of the small number of patients and application to all stages.

CPT can successfully be applied in the treatment of sacral HS as a first-line treatment modality as it is an easily applicable, non-operative treatment method with minimal side effects.

Disclosure statement

All authors declare no conflict of interest and financial relationships.

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References

1. Alikhan A, Lynch PJ, Eisen DB. Hidradenitis suppurativa: a comprehensive review. *J Am Acad Dermatol.* 2009;60: 539–561.
2. Van der Zee HH, Laman JD, Boer J, et al. Hidradenitis suppurativa: viewpoint on clinical phenotyping,

- pathogenesis and novel treatments. *Exp Dermatol.* 2012; 21:735–739.
3. Wollina U, Koch A, Heinig B, et al. Acne inversa (Hidradenitis suppurativa): a review with a focus on pathogenesis and treatment. *Indian Dermatol Online J.* 2013;4:2.
 4. Zouboulis CC, del Marmol V, Mrowietz U, et al. Hidradenitis suppurativa/acne inversa: criteria for diagnosis, severity assessment, classification and disease evaluation. *Dermatology.* 2015;231:184–190.
 5. Lipsker D, Severac F, Freysz M, et al. The ABC of hidradenitis suppurativa: a validated glossary on how to name lesions. *Dermatology.* 2016;232:137–142.
 6. Dogru O, Camci C, Aygen E, et al. Pilonidal sinus treated with crystallized phenol: an eight-year experience. *Dis Colon Rectum.* 2004;47:1934–1938.
 7. Aygen E, Arslan K, Dogru O, et al. Crystallized phenol in nonoperative treatment of previously operated, recurrent pilonidal disease. *Dis Colon Rectum.* 2010;53:932–935.
 8. Zouboulis CC, Desai N, Emtestam L, et al. European S1 guideline for the treatment of hidradenitis suppurativa/acne inversa. *J Eur Acad Dermatol Venereol.* 2015;29: 619–644.
 9. Clemmensen OJ. Topical treatment of hidradenitis suppurativa with clindamycin. *Int J Dermatol.* 1983;22:325–328.
 10. Jemec GB, Wendelboe P. Topical clindamycin versus systemic tetracycline in the treatment of hidradenitis suppurativa. *J Am Acad Dermatol.* 1998;39:971–974.
 11. Boer J, Jemec GB. Resorcinol peels as a possible self-treatment of painful nodules in hidradenitis suppurativa. *Clin Exp Dermatol.* 2010;35:36–40.
 12. Deckers IE, Prens EP. An update on medical treatment options for hidradenitis suppurativa. *Drugs.* 2016;76: 215–222.
 13. Sartorius K, Boer J, Jemec GBE. Topical treatment. *Hidradenitis suppurativa.* Berlin: Springer; 2006. p. 150–60.