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DOI: 10.1159/000500827**Adherence to Over-the-Counter Antimicrobial Washes in Hidradenitis Suppurativa Patients**Paul Leiphart^a Sarah Kitts^a Joslyn Sciacca Kirby^b^aPenn State College of Medicine, Hershey, PA, USA;^bDepartment of Dermatology, Penn State Health Hershey Medical Center, Hershey, PA, USA**Keywords**

Hidradenitis suppurativa · Antimicrobial wash · Adherence

Hidradenitis suppurativa (HS) is a chronic relapsing inflammatory skin condition that results in painful nodules, abscesses, and sinus tracts typically in intertriginous body sites [1]. Topical and oral antibiotics are the first-line treatment for HS [2, 3]. Clinical practice guidelines for HS recommend concomitant antimicrobial washes including chlorhexidine, bleach baths, or benzoyl peroxide (BPO) for reducing inflammation [2, 3]. However, there has been little evidence to assess the use and effects of topical antimicrobial washes on HS patients.

We conducted a cross-sectional study of 186 patients with HS from an academic medical center in Pennsylvania. Health records were queried between January 1 and July 18, 2018, to identify patients 18 years of age and older with a diagnosis of HS who had an antimicrobial wash recommended in their chart. Non-English-speaking patients and patients who could not provide verbal consent were excluded. A telephone survey was developed and piloted by the study team to assess the type of wash, frequency of use, cost, perceived benefit, and any challenges using the wash. Data was obtained via telephone after verbal consent. Descriptive statistics

were performed including means and standard deviations for continuous variables and frequencies and proportions for categorical variables.

A total of 186 people with HS were contacted and 60 consented and participated in the study (response rate 32.3%). Six patients were excluded because they lacked a wash in their current treatment plan. The mean (standard deviation) age of the participants was 42.0 (12.9) years, and 80% (43/54) were female. Overall, 54% (29/54) were recommended to use chlorhexidine and 46% (25/54) were recommended BPO. Figure 1 demonstrates the frequency and distribution of use of chlorhexidine and BPO in these patients; 70% (38/54) were using the recommended wash and 30% (16/54) were not able to obtain a wash. Of those who were recommended a wash, only 30% (16/54) were using it daily. Prescription medication adherence, defined as a patient rarely or never missing doses, was 87% (47/54).

Common barriers to adhering to the washes included affording the wash and finding the wash in a store, with 45% (20/44) of patients who responded to this question reporting at least a little bit of difficulty in affording the wash and 37% (15/41) reporting at least a little bit of difficulty in finding the wash. Both washes did not have their active ingredients prominently displayed, making them difficult to find. Additionally, patients have to use large quantities of wash to cover the affected areas, thereby increasing the price. Patients rated their perceived benefit of using the wash on a 5-point Likert scale for helpfulness of the wash (1 = no improvement, 5 = a lot of improvement) as shown in Figure 2; the average rating was 2.5. Limitations of this study are the inclusion of English speakers only and the use of a nonvalidated telephone survey.

Although antimicrobial washes are standard of care in HS, adherence rates are low compared to prescription medications and their frequency of use varies drastically among patients. Our results are comparable to a similar study done in patients with acne

Fig. 1. Frequency of use in patients with a recommended wash.

Fig. 2. Perception of HS improvement from the wash.

which showed that 64% of patients acquired an over-the-counter (OTC) product, but only 32% had BPO as the active ingredient [4]. However, that study did not examine the frequency of BPO use, and our data shows that in patients who have acquired an OTC wash, the frequency of use varies widely. Patients also perceive little benefit from the washes and face challenges acquiring them. Potential solutions to improve adherence include better education on the importance of the washes and their potential benefits. Providing common brand names for the washes along with images, directing patients to online retailers, or dispensing the washes in the clinic may help patients find the recommended wash more reliably. Further research needs to be conducted to investigate the utility of antimicrobial washes in HS and to determine the optimal frequency of use.

Key Message

Although antimicrobial washes are standard of care in hidradenitis suppurativa, adherence rates are low compared to prescription medications and their benefits are unclear.

Disclosure Statement

Sarah Kitts and Paul Leiphart have no conflicts of interest to declare. Dr. Joslyn Sciacca Kirby is a consultant for ChemoCen-

tryx, Incyte, and AbbVie. She is also a speaker for AbbVie and has received honoraria from Athenex and Sun.

Author Contributions

All authors participated in analyzing the data, reviewing the raw data on which the conclusions and results are based, and writing the paper. Paul Leiphart and Dr. Joslyn Sciacca Kirby designed the study. Paul Leiphart and Sarah Kitts gathered and generated the data.

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