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Geographic distribution of hidradenitis suppurativa publications may signal lack of diversity

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Background: Hidradenitis suppurativa (HS) is an increasingly popular research and publication topic. Nonetheless, the HS literature is less mature compared with some other dermatologic diseases such as psoriasis. Given the limited literature base, we sought to characterize the generalizability of HS literature by investigating the origin of current publications.

Methods: PubMed was queried for the term "hHidradenitis suppurativa." All publications from 2008-2018 with main topic of HS were included. Country of origin of first author was recorded for each publication. Publications were grouped by country and continent. To quantify productivity, number of publication per million people (publications/million) was calculated for each country utilizing 2018 United States Census Bureau data.

Results: 54 countries published 1183 HS papers. The United States (n = 297, 25.1%) was the most prolific country, followed by Denmark (n = 100, 8.5%), and Italy (n = 92, 7.8%). Europe was the most prolific continent (n = 697, 58.9%), followed by North America (n = 332, 28.1%) and Asia (n = 97, 8.2%). Denmark had the highest publication density (17.2 publications/million people), followed by the Netherlands (5.2/million), and Greece (2.7/million).

Discussion: The majority of HS publications arose in Europe and North America, predominantly Caucasian areas. As HS preferentially affects minority populations such as African Americans in the United States, the generalizability of the current HS literature needs to be considered. Future research should characterize the demographics of patients included in studies to further evaluate the applicability of current research to affected populations.

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Validation of claims-based algorithms for psoriasis

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Use of large administrative claims data has been increasingly popular for comparative effectiveness or safety studies of psoriasis treatments. We developed and validated claims-based algorithms to accurately identify patients with psoriasis aged ≥65 years in electronic medical record from two US provider networks linked with Medicare claims from 2013-2014. We developed four claims-based algorithms: 1) ≥2 International Classification of Diseases (ICD)-9 diagnosis codes for psoriasis (696.1); 2) ≥2 diagnosis codes for psoriasis with ≥1 diagnosis made by a dermatologist, 3) ≥ 2 diagnosis codes for psoriasis and ≥1 prescription claim for psoriasis medication, and 4) ≥1 diagnosis code for psoriasis and ≥1 prescription claim for topical vitamin D analogues. The index date for each algorithm was the date of the second diagnosis or a prescription date following a diagnosis. We calculated a positive predictive value (PPV) and 95% confidence intervals (CI) of the algorithms based on treating physician's documentation of psoriasis as the gold standard. The four algorithms identified records ranging from 87 to 459 patients, and the PPVs ranged from 75.3% (95% CI 70.9-79.4) in algorithm 1 to 82.9% (95% CI 73.0-90.3) in algorithm 4. In algorithm 1, among those with determinable severity (63.1%), 51.3% were mild and 43.1% were moderate to severe (43.1%). Psoriatic arthritis was present in 14.6%. When the four algorithms were compared across, the addition of information on specialist visits or disease-specific medications led to a higher PPV. Our claims-based algorithms can serve as a valid and efficient tool in future psoriasis studies using large administrative claims databases.

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Responder characteristics in patients with molluscum contagiosum (MC) treated with VP-102 achieving complete clearance: Pooled results of two phase 3 multicenter, randomized, vehicle-controlled trials for the topical treatment of MC

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Background: VP-102 is a proprietary drug delivery device combination containing cantharidin (0.7% w/v) that has been tested for the treatment of molluscum contagiosum (MC) in 2 phase 3 clinical trials. Post hoc analysis of pooled data from the VP-102 group in these trials examined the characteristics of patients with or without complete clearance of MC in response to treatment with VP-102.

Methods: Subjects ≥2 years of age (age range 2-60) with MC were enrolled in two trials with identical protocols and randomized 3:2 to topical administration of VP-102 or vehicle applied to all baseline and new lesions once every 21 days until clear, or a maximum of 4 applications. Assessors blinded to treatment counted MC lesions at days 21, 42, 63, and at end of the study (EOS) visit (day 84). VP-102 subjects with complete clearance of MC lesions by EOS were considered responders. Data were analyzed for adverse events (AEs), baseline (BL) demographics, and MC characteristics in responders vs non-responders.

Results: In the subjects treated with VP-102, responders (n = 155) and non-responders (n = 155) had similar demographic (age, sex, ethnicity, and race) characteristics including time since MC clinical diagnosis and similar incidence of AEs. Lesion counts of non-responders was somewhat higher (median 25.35 vs 20.26, $P < .05$).

Conclusions: Responders and nonresponders to VP-102 were similar in demographic BL characteristics and incidence of AEs. Safety was similar across groups regardless of response. These data suggest that any patient within the requirements of the study protocol could be a candidate for response to VP-102.

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The off-label use of spironolactone in female pattern hair loss

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Female-pattern hair loss (FPHL) is the most common form of alopecia in women with pathogenesis at least partially driven by androgens. Spironolactone has long been used as a diuretic and is now commonly prescribed off-label for use in FPHL given its antiandrogen effects. Although generally well tolerated, with mild, dose-dependent side effects (SE), few studies have examined its efficacy in treating FPHL. In this retrospective study, we examined the clinical improvement, as measured by Sinclair score6 and reported SEs of 61 women, with at least 6-months of oral spironolactone use as mono or combination therapy. The average age of participants was 50 (range 20-79) with 47% identifying as post-menopausal. 87% of patients were prescribed a dosage of 50 mg twice daily, with 43% on spironolactone monotherapy. Average Sinclair score at presentation was 2.4. All participants demonstrated stability or improvement in hair regrowth, with average scores of 2.0 and 1.8 at 6 month and 1+ year follow-up, respectively. Dizziness (15%) and 'other' (polyuria, polydipsia, xerostomia, myalgia) (15%) were the most commonly reported SEs, followed by intermenstrual bleeding/spotting (3%). Only one patient was found to have hyperkalemia, which resolved following dose reduction. Of SEs reported, 95% demonstrated complete resolution, with only 10% requiring cessation of spironolactone. These findings suggest that oral spironolactone is a well tolerated and effective therapy for FPHL, for use either as monotherapy or in addition to existing regimens.

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