cordance of PASI/PPPASI 50 assessments and management decisions. Because severity scorings differed mainly in diverse estimations of the involved area and induration of the lesions, one may speculate that the divergence might have resulted from the inability of the teledermatologists to see the entire body and to palpate the lesions, or it might have resulted from some flaws of the PASI scoring system for which an interrater variability of up to 8.1 PASI scores has been described.[5]

In our study, the interrater variability was very low (Table), indicating that mobile teledermatology is a feasible method for monitoring disease severity in patients with psoriasis. Larger controlled studies are required to evaluate the impact of remote follow-up care on patient empowerment and its influence on the therapeutic outcome.

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## Risk of Hepatic Hemangiomas in Infants With Large Hemangiomas

While most infantile hemangiomas are benign and uncomplicated, a minority may have associated internal involvement that can lead to significant morbidity.[1,2] Multiple cutaneous hemangiomas have been recognized as potential markers of underlying hepatic hemangiomas.[1-4] Two recent retrospective studies suggest that infants with large (≥5 cm in diameter) and/or segmental cutaneous hemangiomas are also at risk for hepatic hemangiomas.[2,3] These reports have led many clinicians to screen infants with large cutaneous hemangiomas for hepatic hemangiomas. An algorithm for the evaluation and management of hepatic hemangiomas in asymptomatic infants with multiple (≥5) cutaneous hemangiomas, based on retrospective data, has recently been published.[4] However, controversy remains regarding the number of cutaneous hemangiomas that should serve as the threshold at which to perform such screening.[5] Definitive guidelines regarding the workup for hepatic hemangiomas in asymptomatic infants with large cutaneous hemangiomas, particularly within the first few months of life, are lacking in the literature. The true prevalence of this association is also unknown because, to our knowledge, no prospective studies of infants with large cutaneous hemangiomas have been undertaken. To assess this risk, we report results from a multicenter, prospective study in which infants with large cutaneous hemangiomas were systematically evaluated for hepatic hemangiomas.

**Methods.** Infants aged between 1 and 6 months referred to a pediatric dermatologist with fewer than 5 and at least 1 large hemangioma (>30 $cm^2$) were consecutively enrolled between 2006 and 2008 at 4 Hemangioma Investigator Group sites. This study was a nested study within a larger study looking at infantile hemangiomas with a risk of morbidity related to either size of the hemangioma or number (≥5). Institutional review board approval was obtained at each site. A standardized questionnaire was completed on each infant. The hemangiomas were classified based on morphologic characteristics and size, with size determined by measuring 2 perpendicular surface diameters with a flexible measuring tape. Physical examination and abdominal ultrasonography were performed on each infant.

**Results.** Demographic and clinical characteristics are summarized in the **Table**. A total of 60 infants with at least 1 large hemangioma (>30 $cm^2$) were enrolled. The mean (SD) hemangioma size was 73.6 (38.4) $cm^2$. At the time of enrollment, all infants were clinically asymptomatic without signs of hepatomegaly, abdominal distention, or congestive heart failure. No hepatic hemangiomas were identified on ultrasonography.

**Comment.** To our knowledge, this is the first attempt to prospectively assess the risk of hepatic hemangiomas in infants with large cutaneous hemangiomas, an associa-

**Table. Demographic and Clinical Characteristics of Infants With Large Hemangiomas**

| Characteristic | Finding[a] |
|---|---|
| Birth weight, mean (SD), kg | 3.2 (0.7) |
| Gestational age, mean (SD), wk | 38.3 (2.3) |
| Term infants, ≥37-wk gestation | 48 (84) |
| Preterm infants, <37-wk gestation | 9 (16) |
| Sex | |
| Female | 40 (67) |
| Male | 20 (33) |
| Race | |
| White | 56 (94) |
| Black | 2 (3) |
| Asian | 2 (3) |
| Cutaneous hemangiomas, No. | |
| 1 | 45 (75) |
| 2 | 8 (13) |
| 3 | 6 (10) |
| 4 | 1 (2) |
| Hemangioma classification | |
| Segmental | 42 (71) |
| Indeterminate | 12 (20) |
| Localized | 5 (9) |
| Hemangioma location | |
| Face | 25 (42) |
| Upper extremities | 13 (22) |
| Trunk | 10 (17) |
| Scalp or neck | 4 (7) |
| Buttock/perineum | 4 (7) |
| Lower extremities | 3 (5) |
| Age at the time of ultrasonography, mean (SD), wk | 13.6 (6.4) |

[a] Unless otherwise indicated, data are presented as number (percentage) of study infants.

tion found in none of our patients. It is important to note that study recruitment occurred in pediatric dermatology clinics, which may explain why none of the patients presented with clinically symptomatic hepatic hemangiomas. The predominance of segmental hemangiomas in our report is not surprising because segmental hemangiomas typically have larger surface areas of involvement.[6] The preponderance of term infants is explainable because unlike localized and multiple hemangiomas, which are more common in preterm infants, segmental hemangioma incidence is not affected by gestational age.[7]

Our findings suggest that infants with large cutaneous hemangiomas (>30 $cm^2$) may not be at an increased risk for concomitant hepatic hemangiomas as initially reported in the literature and as seen in infants with multiple cutaneous hemangiomas. Hughes et al[3] retrospectively reported the cases of 25 infants with solitary, large (≥5 cm) cutaneous hemangiomas, 3 of whom had clinically asymptomatic hepatic hemangiomas identified on abdominal ultrasonography (12%). Metry et al[2] also noted the association of hepatic hemangiomas and solitary segmental cutaneous hemangiomas in a retrospective report of 4 cases of patients with segmental cutaneous hemangiomas and a literature review of 47 others; however, no prevalence could be estimated since all infants had visceral hemangiomas. The authors recommended that infants with solitary, segmental cutaneous hemangiomas be screened for visceral involvement when clinically indicated.

Based on the results of the present study, routine screening ultrasonography for hepatic involvement in asymptomatic infants with large cutaneous hemangiomas may not be necessary unless clinically indicated. However, because some infants may present with significant hepatic hemangiomas with few or no cutaneous hemangiomas, and until the true risk of this possible association is known, infants with large cutaneous hemangiomas should continue to be clinically monitored, especially during the first 6 months of life when the risk of complications associated with hepatic hemangiomas is considered to be the greatest. Signs or symptoms suggestive of hepatic hemangiomas that would indicate the need for further workup include a history of poor growth or feeding, tachypnea, cardiac murmur, abdominal distention, or hepatomegaly.

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## The Problem With "Pruritis"

The dermatologic term *pruritus* appears to be misspelled frequently as *pruritis* in dermatology residency applications, formal presentations, and the medical literature (unpublished observations). Because spelling accuracy often is necessary to optimize retrieval of articles in electronic databases,[1] I evaluated the prevalence of and risk factors contributing to the misspelling of *pruritus* as *pruritis* in the titles and abstracts of articles cataloged in PubMed.

**Methods.** On December 23 and 24, 2008, I performed electronic literature searches on PubMed using the search terms "*pruritus*" and "*pruritis*". Quotation marks were used around each term to evade automatic spelling correction by database software. Inclusion criteria included publication in the English language within the last 5 years. Titles and abstracts from all articles retrieved with a search for *pruritis* were analyzed, as were those of the same number of articles containing *pruritus* (starting from the most recent article listed). I recorded the nature of the journal (dermatology vs nondermatology), journal impact factors (as reported in *Journal Citation Reports*[2]), and whether authors were affiliated with institutions in countries having English as one of the official languages (as reported in Wikipedia.com, accessed December 23, 2008). For journals not included in *Journal Citation Reports*, the impact factor was approximated at 0.0 to facilitate calculations.

**Table. Articles With Titles and Abstracts Containing the Terms *Pruritus* or *Pruritis*, as Indexed by PubMed[a]**

| Characteristic | Search Term[b] "*Pruritis*" (n=118; 4.9%) | Search Term[b] "*Pruritus*" (n=2293; 95.1%) |
|---|---|---|
| Would have been missed in search using only correct spelling | 91.5 | NA |
| Published in dermatology journals | 5.9 | 39.8 |
| Written by authors from countries with English as an official language | 69.7 | 46.7 |
| Journal impact factor, mean | 1.81 | 1.84 |

Abbreviation: NA, not applicable.
[a] Unless otherwise indicated, data are reported as percentage of articles found using the given search term.
[b] Quotation marks were included in the search term to evade automatic spelling correction by database software.

**Results.** *Pruritus* was misspelled as *pruritis* in approximately 5% of titles and abstracts of articles on the topic indexed in PubMed. More detailed results are reported in the **Table**. Risk factors for misspelling included publication in a nondermatology journal and authorship by writers from countries in which English is an official language. Journal impact factor did not appear to be correlated with frequency of term misspelling.

**Comment.** These findings imply that copy editors of nondermatology medical journals and authors from English-speaking countries should be particularly vigilant in identifying and correcting this common misspelling prior to the publication of articles discussing pruritus. This is particularly important because such misspelling could limit the sensitivity of electronic searches for articles about pruritus.

Despite the dearth of information on misspelling in the medical literature, I speculate that the reasons for the misspelling of *pruritus* could be several. For example, familiarity with the medical suffix "-itis" (a Greek suffix meaning "inflammation of the anatomic structure indicated by the associated word stem"[3]) may lead to incorrect assumptions regarding the spelling of *pruritus*. Moreover, English-speaking authors who rely on phonetics to guide spelling may be led astray by the similar pronunciation of *pruritus* and *pruritis*.

It is unknown whether spelling errors were present in original article titles and abstracts or they were introduced during database abstraction, a phenomenon that has been described previously.[4] Inaccurate spelling of *pruritus* is unlikely to be attributable entirely to errors in database indexing, however, since other factors (such as publication in a nondermatology journal) were directly associated with risk for misspelling.

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