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Level of evidence within dermatology; bibliometric trends compared with general medicine and general surgery from 2008-2017: A bibliometric systematic review



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Despite adaptation of high-evidence guidelines, such as Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA), low-reporting quality persists in scientific publications across specialties, including dermatology. A bibliometric systematic review was conducted to compare level 1 evidence publications in Dermatology, General Surgery and General Medicine from 2008-2017. Publications were identified through Clarivate's 2016 Journal Citation Reports (JCR) and PubMed (1/1/2008-12/31/2017) in accordance with PRISMA. Three JCR categories were selected: General Medicine, General Surgery, and Dermatology. The top 10 medical journals in each category, based on 2016 JCR Eigenfactor score, were included. Publications were categorized by article-type, "Systematic Reviews (SRs)," "Meta-Analyses (MAs)," and "Randomized Controlled Trials (RCTs)" and compared from '2008-2012' and '2013-2017.' 127,796 publications were identified: 11,990 SRs, MAs, and RCTs were included. Data analysis revealed that high-evidence publications in Dermatology from 2008-2012 to 2013-2017 increased by 25.03% (7.91% vs. 9.89%); General Surgery increased by 24.68% (6.97% vs. 8.69%); and General Medicine decreased by 10.32% (12.02% vs. 10.78%). There was a statistically significant change in the percentage of SRs ($P = .0071$) and MAs ($P = .0142$) in Dermatology, as well as SRs ($P = .0053$) in General Surgery. Cross-specialty analysis between 2008-2012 and 2013-2017 showed statistically significant differences in SRs and MAs between General Medicine and Dermatology ($P = .0049$), and General Medicine and Surgery ($P = .0038$). Dermatology has shown significant growth in high-evidence publications, comparable to General Surgery, and approaching the total percentage of high-evidence General Medicine publications. While this is promising, examining the quality of these publications and striving for increased evidence in dermatology publications is imperative.

Commercial Disclosure: None identified.

33441

Line-field confocal optical coherence tomography: A new noninvasive technique for the in vivo diagnosis of common viral infections of the skin



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Background: Line-field confocal optical coherence tomography (LC-OCT) is a new noninvasive technique for a real-time, vertical and horizontal skin imaging from the stratum corneum to the dermis at cellular resolution.

Objective: To evaluate the LC-OCT features in a series of patients affected by herpes simplex, herpes zoster, and molluscum contagiosum.

Methods: Five patients (3M/2F, mean age 38 years) affected by herpes simplex, 6 (4M/2F, mean age 59 years) by herpes zoster, and 7 (4M/3F, mean age 23 years) by molluscum contagiosum were evaluated by LC-OCT. The study was performed in accordance with the Declaration of Helsinki.

Results: In herpes simplex and zoster, LC-OCT examination of the vesicular lesions clearly showed, in both vertical and horizontal sections, the presence of well-defined, intraepidermal, dark vesicular spaces containing large, roundish elements, likely corresponding to the characteristic giant, ballooning and multinucleated cells, along with acantholytic keratinocytes and inflammatory cells. In molluscum contagiosum, LC-OCT in the vertical and horizontal views revealed the presence of single or multiple, well-demarcated, intraepidermal, crateriform invaginations composed of large, polygonal, hyporefractive cells with bright contours, corresponding to the characteristic enlarged keratinocytes containing intracytoplasmic viral inclusions (Henderson-Paterson bodies).

Conclusions: Our results indicate that LC-OCT is able to identify in vivo the specific microscopic features of herpes infection and molluscum contagiosum. Although the diagnosis of these cutaneous diseases is generally clinical, in minimal and/or atypical cases LC-OCT could be a rapid and valid alternative to semi-invasive/invasive and time-consuming procedures such as Tzanck's test or histopathology.

Commercial Disclosure: None identified.

31840

Local recurrence rates of extramammary Paget disease are lower following Mohs micrographic surgery compared with wide local excision: A systematic review and meta-analysis



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Background: Extramammary Paget disease (EMPD) is a rare, slow-growing neoplasm that presents most commonly in the anogenital region of older adults.

Objective: To analyze the difference in local recurrence rates of EMPD in patients treated with wide local excision (WLE) versus Mohs micrographic surgery (MMS).

Methods: A systematic review of the literature and meta-analysis were performed. Inclusion criteria was adults greater than 18 years of age with a diagnosis of EMPD who have undergone surgical intervention and had follow-up data. Studies were independently reviewed by 2 coinvestigators with discrepancies resolved by the principal investigator.

Results: Twenty-seven studies met inclusion criteria. Patients had a 2.67 times higher chance of local recurrence after WLE compared with MMS (95% CI 1.47-4.85; $P = .001$). Meta-analysis of single arm studies revealed a 7.3% local recurrence rate after MMS (95% CI 0.039 – 0.107; $P < .001$) versus a 26.3% recurrence rate after WLE (95% CI 0.149-0.376; $P < .001$). After excluding recurrent tumors, the odds ratio for recurrence in WLE vs. MMS was 2.3 (95% CI 0.285-18.43, $P = .435$).

Limitations: Our study was limited by the lack of available prospective randomized control trials.

Conclusion: There is a clinically and statistically increased risk of local recurrence of EMPD after WLE compared with MMS.

Commercial Disclosure: None identified.

33624

Long-term cutaneous manifestations in COVID-19 patients: A systematic review



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Introduction: Skin lesions have been reported as symptoms in several COVID-19 patients. Moreover, there is evidence describing persistence of pernio, papulosquamous lesions, and livedo reticularis in patients, several weeks after the peak of the disease.

Materials and methods: A primary search for peer-reviewed literature published until May 1st, 2021 was conducted with PubMed and EMBASE. Studies documenting persistent skin lesions in confirmed COVID-19 cases after the initial diagnosis or resolution of symptoms were included. 22 studies (15 case reports, 5 case series, 1 cohort and 1 cross-sectional study) with a total of 236 COVID-19 patients were included.

Results: Cutaneous lesions reported in the 236 long COVID patients (age range = 6-89 years, 164 females, 48 males, 24 no reported gender) were: 196 alopecia, 10 pernio, 4 maculopapular, 2 urticarial, 1 vesicular, 1 purpura, 1 papulosquamous, 1 Kawasaki like, 1 cheilitis, 1 sarcoid granuloma, 1 onychomadesis, and 1 orange nail lesion, while 16 patients did not have a specific lesion reported. The timing of onset of lesions ranged from 7 to 180 days after the initial diagnosis or symptom resolution. The duration of lesions ranged from 6 to 240 days. One patient was hospitalized and one required intubation.

Conclusions: Our description of persistent cutaneous and pathological manifestations may help clinicians understand the spectrum of lesions in long COVID cases and suggests the mechanistic role of persistent inflammation and stress. However, further investigation is needed to determine the full clinical spectrum, mechanism and prognostic significance of such skin lesions.

Commercial Disclosure: None identified.