
Abstract

Are We Missing Something? The Skin Lesions Not Seen in Teledermatology

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Abstract

Background: The suspected skin cancer electronic referral pathway was introduced in 2017. It requires general practitioners to add regional, close-up, and dermoscopic images to a lesion-specific referral template for a teledermatologist to review and advise on management. The virtual lesion clinic is a nurse-led clinic used since 2010 to obtain high-quality images for teledermoscopy assessment. A limitation of both services is the absence of a full-body examination.

Objective: This study aims to evaluate the number of skin cancers missed during teledermatology assessment.

Methods: This is a retrospective review of skin lesion referrals to dermatology. Suspected skin cancer referrals made in the latter half of 2020 were compared with referrals to the virtual lesion clinic during a similar time period in 2016.

Results: The study included 481 patients with 548 lesions in the 2020 suspected skin cancer cohort that were matched for age, sex, and ethnicity to 400 patients with 682 lesions in the 2016 virtual lesion clinic cohort. A total of 41 patients underwent subsequent specialist review in the suspected skin cancer cohort compared to 91 in the virtual lesion clinic cohort. A total of 20% of the suspected skin cancer cohort and 24% of the virtual lesion clinic cohort were found to have at least one additional lesion of concern. The majority of these were keratinocytic skin cancers; there were 2 and 0 additional melanomas or melanoma-in-situ, respectively. The virtual lesion clinic nurses identified additional lesions for imaging in 78 of 400 (20%) patients assessed in the virtual lesion clinic. The teledermatologist determined (author AO) that 73% of these additional lesions were malignant. Of the 548 lesions, 10 (2%) in the suspected skin cancer group were rereferred, none of which had a change in diagnosis. Out of 682 lesions, 16 (2%) in the virtual lesion clinic cohort were rereferred, 6 (1%) of which had a change in diagnosis.

Conclusions: Patients diagnosed with skin cancer often have multiple lesions of concern. Single-lesion teledermoscopy diagnoses have high concordance with in-person evaluation and histology; however, we have shown that in-person examination may reveal other suspicious lesions. The importance of a full-body skin examination should be emphasized to the referrer.

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