LETTER TO EDITOR

Patients' Smartphone Cameras as Tools for Imaging Skin Lesions

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Dear ,

We would like to highlightthe benefits of using patients' smartphones as tools for documenting images of skin lesionsas a part of their management. Assessment of a skin lesion(s) is a common presentation to the plastic surgery outpatient clinic. Accurate assessment and documentation are vital to ensure appropriate treatment. In the United Kingdom, the incidence of skin cancer is increasing[1]. Skin lesion assessment represents 35-45% of referrals to the specialist clinic[2].

Medical illustration departments work to providevisual documentationof the lesion(s). With increased service pressures it is not always possible to access medical illustration due to workload and costs.

However, smartphone cameras are able to capture high quality images and successfully document skin lesions[1]. Asaid et al demonstrated that smartphone cameras, whilst not able to provide the same quality image as clinical photography, can be used effectively for assessing skin lesions[3].

One advantage of using smartphones to document skin lesions is monitoring the lesion(s) over time and recording changes prospectively. Patients are able to present the visual timeline, supporting the diagnostic process. Smartphone images are also helpful for surveillance. In the context of pigmented lesions[2], this can have significant benefits in detecting subtle changes over a period of time.

Smartphone photography can also be used to image areas not always visible to the patient,for example the back or scalp, or if multiple lesions are present in the same area. A smartphone imagecan accurately locate the lesion for assessment. Furthermore, it facilitates informed counselling of the patient when discussing the diagnosis and management, especially if needing reconstruction.

During a busy theatre list, images stored on patients'smartphones enable the surgeon to efficiently review the image with correlation to the proposed surgical site. It is not uncommon to encounter uncertainty for the correct lesion to be excised on the day of surgery as lesions may have progressed or regressed with time. For patients requiring procedures utilising nuclear medicine, images stored on their smartphone supports the localisation process. This is particular useful in the context of melanoma where the patient may have multiple naevi and injection of the correct site is paramount[3].

Our experience demonstrates that smartphones play asupporting role in the assessment and management of a skin lesion(s), Free of cost or ethical burden, we propose this tool as an adjunct to the overall care of patients with considerable advantages, and few drawbacks.

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