

Do images affect the triage status of pigmented lesion referrals

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Abstract

Aim

The National Cancer Control Programme (NCCP) 'Pigmented Lesion general practitioner (GP) referral form' has been a text only document but now allows the addition of an image. We aimed to evaluate if these images had an impact upon triage status.

Methods

We compared the triage assessment of referrals both with and without the attached images and their clinical outcomes.

Results

A total of 51 referrals were reviewed. With an attached image a total of 4 patients (8%) had their triage status upgraded, 24 (47%) had their status deescalated and 23 (45%) had their status unaffected. Of the 40 patients seen in clinic, 31 (77.5%) were diagnosed as benign lesions. Surgery was performed on 10 patients (25%) with a diagnosis of cancer in 8 (20%) of the cases.

Discussion

The priority of a referral can be more suitably triaged with the addition of an image. A correct pre-clinical diagnosis could be made from the image for both benign and malignant lesions in the majority of cases.

Introduction

Traditionally the National Cancer Control Programme (NCCP) pigmented lesion e-referral form for general practitioners (GP) has been a text only document with prompted tick boxes for lesion descriptors, melanoma characteristics and clinical comments. Recently an addition was made to the system allowing for the attachment of digital images. The purpose was to enhance the information supplied by the GP thereby facilitating a more accurate and efficient triaging process¹. The system has been trialled in several centres in the country². We aimed to evaluate if the images attached to referrals received in our centre, had an impact upon triage status.

Methods

We performed a prospective case control study from August 2020 to August 2021. A single consultant dermatologist evaluated the referrals. Referrals without an image were excluded. A referral could be triaged as urgent, soon or routine. Each referral was triaged initially using the written information alone followed by both the written information and image(s) together. Each referral therefore acted as its own control for comparison. As secondary outcomes we assessed the number of cancers and the accuracy of the details provided by the GP on each referral.

Results

We reviewed 51 referrals in total; 40 of which were seen in the clinic, 11 did not attend. The image was deemed of good quality in 38/51(86%) of the referrals. The referral form was fully completed in 93% of cases and the history documented by the GP was deemed accurate in 98% of the patients reviewed.

GPs referred lesions as urgent in 30/51 cases and routine in 20/51 cases (table 1). When the written descriptor was triaged by the dermatologist nearly all of the urgent cases remained urgent and there was a general escalating trend in triage status from routine to soon. The addition of an image resulted in a general downtrend in triage status with a decrease in urgent triages to 11/51(37%), an almost two third reduction. Of the 40 patients who attended, 31(77.5%) were diagnosed correctly from the image and referral before being seen in person. 'Pre-Clinic' a benign diagnosis was made in 22(55%) of cases with skin cancers diagnosed correctly in 9(22.5%) cases. All cancers were treated surgically. Two had melanoma (5%), 4(10%) had squamous cell carcinoma in-situ and 3(7%) had basal cell carcinoma. The melanomas were referred, triaged and seen as urgent.

No 'pre-clinic' diagnosis could be made in 9(22.5%) of referrals with an accompanying image. The image was of poor quality in 6(12.5%) of these cases. Of the remaining 3 cases, 2 needed an excision for diagnosis, The triage status of these three referrals was upgraded as no 'pre-clinic' diagnosis could be made. All cases proved to be benign.

Discussion

Due to the highly visual nature of pigmented skin lesions an image supplied with the referral letter greatly enhances the quality of a referral. This allows for more accurate triaging by the dermatologist with the potential to discharge patients with benign diagnoses directly back to the GP, without the need for a 'face-to-face' consultation, or listed directed for surgery if malignancy was suspected. A study by Börve et al. compared 816 teledermatology referrals to 746 traditionally written referrals³. Triage decisions were shown to be more accurate via teledermatology and over 40% of patients could have avoided a face-to-face visit. In our study over 75% of cases could either have been discharged as

benign or listed for surgery without an outpatient visit. Such enhancement of the triaging process has the potential to free up much needed outpatient appointments and ultimately reduce waiting times. All malignant lesions were correctly diagnosed from the written description and attached image allowing for more precise triaging. The diagnostic concordance of teledermatology for skin lesions compared to in-person review has been reported to range from 54-91%(77.5% in our own study)⁴. The downside of managing patients virtually is the inability to conduct a full skin examination and the possibility of missing an incidental finding. Studies from the United States and Ireland have shown rates of incidentally detected melanomas of 1.1%(n=809) and 0.3%(n=483) respectively ^{4,5}. In conclusion, the majority of skin lesions referred with an image could be accurately diagnosed without 'face-to-face' consultation. This allows for more accurate triage and the potential to reduce waiting lists. This inexpensive and currently available software should be made available for all dermatology departments nationally to receive image enhanced lesion e-referrals.

Table 1: Changes in triage status designation between GP referrals and after dermatologist evaluation of written vs. written and image referrals (n = 51). Judging a referral by text alone escalates and maintains a higher triage status. The addition of an image results in a general de-escalating trend in urgent triages.

Triage Status	As referred by GP	Determined by dermatologist assessment of:	
		Written referral	Image and written referral
Urgent	30	26	11
Soon	1	17	16
Routine	20	8	24

Declarations of Conflicts of Interest:

None declared.

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