

Effect of public education aimed at early diagnosis of malignant melanoma: cohort comparison study

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Excision of primary melanomas <1.5 mm thick improves patients' chances of survival, giving 10 year disease free survival rates of 90% in men and 95% in women.¹ Once a melanoma has metastasised, however, non-surgical therapy does not prolong survival. Early recognition of malignant melanoma is therefore important.

In 1986, we reported that only 20 out of 125 patients with melanoma consulted their general practitioner within three months of observing a worrying pigmented skin lesion and that only 38% had melanomas <1.5 mm thick.² This survey gave rise to a public education campaign about melanoma in Scotland,³ which was subsequently extended throughout the United Kingdom.⁴

We have reported early results⁵ and now report a study conducted in 2001 to measure changes in diagnostic delays attributable to patients, primary care, and secondary care over 15 years. We also investigated whether reductions in treatment delay were accompanied by reductions in the thickness of primary melanomas, the most important prognostic factor.

Participants, methods, and results

We studied 162 patients referred to a rapid access pigmented lesion clinic in 2001 who had a primary melanoma diagnosed. We interviewed them within six weeks of diagnosis and determined the time between their first observing a worrying pigmented skin lesion and consulting their general practitioner. We obtained dates of general practitioner referral to the clinic, clinic appointment, and diagnostic biopsy from case notes. We divided patients into those with good prognosis tumours <1.5 mm thick and those with thicker tumours.

In 2001, 109/162 (67%) patients attended their general practitioner within three months of noticing a worrying pigmented lesion, 40 (25%) attended between 3 and 12 months, and 13 (8%) waited longer (table). General practitioners referred 115 (71%) patients on the day of consultation, 41 (25%) within four weeks, and six (3%) after four weeks. Sixty three patients (39%) had waited less than three weeks between referral to the specialist service and diagnostic biopsy.

Specialist delay comprises time from general practitioner referral to consultation and surgery. Fifty three patients (33%) were seen within two weeks of receipt of the general practitioner's letter, with 109 (67%) waiting longer (range 15-131 days). Ninety nine patients (61%) had diagnostic surgery within seven days of their consultation with the specialist, and 63 (38%) waited longer (range 8-172 days, median 51 days). In all, 116 (72%) of the melanomas were <1.5 mm thick.

By comparison, in 1986 only 20/125 (16%) patients consulted their general practitioner within

Comparison of patient delays and tumour thickness in 1986 and 2001

	No (%) of patients, 1986 (n=125)	No (%) of patients, 2001 (n=162)	Difference (95% CI)	P value
Patient delay (months):				
≤3	20 (16)	109 (67)	51 (42 to 61)	<0.001*
3-12	63 (50)	40 (25)		
≥12	42 (34)	13 (8)		
Tumour thickness:				
<1.5 mm	47 (38)	116 (72)	34 (23 to 45)	<0.001†

* χ^2 for trend=72.3, df=1.

† χ^2 for trend=33.2, df=1.

three months of noticing a worrying pigmented lesion, 63 (50%) waited 3-12 months, and 42 (34%) waited over two months (table). General practitioners referred patients rapidly, with only three patients experiencing primary care delays greater than four weeks. All 125 patients in 1986 had surgery within three weeks of referral and 47 (38%) had melanomas <1.5 mm at diagnosis. The reductions in patient delay and tumour thickness between 1986 and 2001 are significant ($P < 0.001$).

Comment

We found a significant reduction in patient delay between 1986 and 2001, coinciding with a significant reduction in the number of patients with primary melanomas ≥ 1.5 mm. This provides strong evidence that public education is effective. The reduction in the proportion of patients with melanomas ≥ 1.5 mm should translate to improved survival. However, the specialist service was not as efficient in 2001 as in 1986, with 99 patients waiting over three weeks from referral by their general practitioner to surgery in 2001, compared with none in 1986. This trend needs careful audit.

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