Self screening for risk of melanoma: validity of self mole counting by patients in a single general practice

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Abstract

Objective—To validate self screening by patients of high mole counts, assess the within family association of sun protection behaviour and mole counts, and estimate prevalence of risk factors for melanoma.

Setting and subjects—Systematic sample of families from a single affluent general practice population in Wessex.

Design—Subjects completed a questionnaire about risk factors for melanoma and counted their moles. Subsequently a mole count was done by a general practitioner trained at dermatology clinics.

Main outcome measures—Validation of self counts by observer's count. Within family association of sun protection behaviour and mole counts; self reported risk factors.

Results—199/237 subjects (84%) returned the questionnaire; 212/237 (89%) were examined. High counts by patients on the front of the trunk (>7 moles of ≥ 2 mm) were reasonably sensitive (79%), predictive (75%), and specific (97%) of the observer's mole counts ($\kappa=0.74$), unlike arm or total body counts. Sun protection behaviour correlated between individuals and other family members (Spearman's coefficient $r=0.50$, $P<0.01$). In the past three months 15/114 adults (13.2%, 95% confidence interval 7.0% to 19.4%) reported any change in a mole and 6/114 (5.3%, 2.0% to 11.1%) "major" changes; 6/109 adults (5.5%, 2.1% to 11.6%) had both high mole counts and freckling.

Conclusions—Asking patients to count trunk moles could be a feasible way of identifying patients at high risk of melanoma. Concentrating on reported major changes in moles should avoid considerable workload in general practice. The generalisability of these findings and the adverse effects, net benefit in earlier diagnosis and prevention, and workload implications of such self screening need further research.

Introduction

Malignant melanoma has a fairly low average annual incidence (about 1 in 10 000)¹ and has a poor prognosis if identified late.² Identifying individuals at high risk of melanoma in a primary care setting, in addition to population approaches, is a potentially important part of the strategy to reduce mortality from melanoma.³

The number of benign moles is one of the best simple indicators of risk of melanoma, associated with high relative risks and population attributable risk.³⁻¹¹ A case-control study in Australia used data from one half of the cases to try to predict melanoma in the other half: the number of benign moles was the best predictor of risk, and prediction was not greatly improved by the addition of other risk factors.⁷ Site specific counts of moles (on limb or trunk) are also

associated with high risk of melanoma,⁴⁻¹¹ and mole count at one site of the body correlates with the total mole count.^{6 12 13} The presence of atypical moles or the atypical mole syndrome may further increase risk of melanoma.¹⁴⁻¹⁶

Is it feasible to identify individuals with many moles (therefore at high risk of melanoma) in general practice? Although total body mole counts are likely to be too time consuming in primary care, site specific counts might be feasible to identify high risk individuals. Site specific self counts of moles by nurses predict risk of melanoma⁶ and self reported mole counts of "more than average (20)" provide as good an indicator of risk of melanoma as mole counts by trained interviewers on limbs.¹⁷ Interviewers' counts of raised moles on one arm, however, do not correlate well with dermatologists' counts.¹² These observations have been documented in few studies, none in a British primary care setting, and no evidence exists for the comparative accuracy of untrained mole counting for different body sites.

Other risk factors for melanoma are freckling, tendency to burn, hair colour, probably sunburn in childhood, and possibly sunburn in adulthood and regular sunbathing or beach holiday.^{10 11 16 18-26} The case-control studies in Britain, however, used hospital controls. How common each of these risk factors is in British general practice lists is not known.

What kinds of practice should have greater priority for screening for risk of melanoma? Estimation of risk is especially relevant for young families with children and in higher social classes. Sunburn in childhood may be particularly important,^{7 8 18 22 24 27} so it is probably vital to identify children who are at additional risk because they have many moles, which are likely to increase in number with age.^{28 29} Higher social classes have more than twice the risk of melanoma,^{8 18} probably partly because of sunburn.¹⁸

We therefore chose a general practice population that was relatively affluent and young for a validation and prevalence study to estimate the sensitivity, specificity, and positive predictive value of patients' mole counts; to estimate the prevalence of reported changes in moles and of known risk factors for melanoma in an affluent general practice population; and to assess the extent to which current skin protection behaviour and mole counts are associated in families.

Methods

TRAINING AND PILOT STUDY

In this collaborative study the general practitioner (PL) was trained to count moles for six months at twice weekly dermatology clinics. To check the validity of the training, in 32 subjects at a hospital clinic the right arm and trunk moles (≥ 2 mm) were counted by both the general practitioner and the dermatologist (MK) in

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alternate order and blind to each other's count: the rank correlation was 0.92. The subjects then completed a questionnaire related to risk factors for melanoma (the same questionnaire to be used in the main study).

The reliability of the questionnaire was assessed in 28 of the subjects after one to two weeks: there was perfect agreement for subjects reporting any change in a mole or a major change, and for the reported risk factors (see table I) rank correlations were greater than 0.80 (except childhood beach holidays, $r=0.71$).

SAMPLE SIZE CALCULATION

To estimate the prevalence of risk factors at a 5% (95% confidence interval 1% to 9%), 10% (5% to 15%), and 20% (14% to 26%) level and for the 95% confidence intervals to exclude 50% for 75% sensitivity and 75% positive predictive value for patient versus observer mole counts (for the top 10% of the population), we estimated that a minimum of 200 subjects would be needed (CIA, BMJ Publishing Group).

SELECTION OF PRACTICE AND SUBJECTS

The subjects all came from the list of a single general practice, which possibly contributed to the high compliance for such an intensive study. A systematic sample ensured uniform coverage of the practice list with relatively few samples: every 125th patient registered with the practice was chosen to generate a minimum of 60 individuals (67 individuals in all). All members of the same family and address who were registered at the same practice were identified, yielding 67 family groups. An introductory letter explaining the rationale of the project was sent to the household, and a questionnaire enclosed for each member of the family to complete. The questionnaire related to risk factors for melanoma, and included questions about "any" change or "major" change in moles (changes in size, shape, or colour). The questionnaire gave the following simplified descriptions: "A mole is a skin mark (usually dark brown) which appears before the age of 35 and does not appear or change colour in the sun. Moles can be either flat (not raised above the skin surface) or raised (felt above the skin surface). (NB A freckle is a light brown mark with an irregular edge that appears or goes darker in the sun. A seborrhoeic wart is a darker coloured skin mark which appears after the age of 35, has small pits on the surface, and appears 'stuck on')."

The questionnaire also included instructions to count moles of different sizes (<2 mm, ≥ 2 mm, ≥ 4 mm; filled in circles showed sizes) on two sites: (a) the

right arm (up to a verticle line up from the armpit) and (b) front of trunk (from the bottom of the neck to the groin), and a request to perform a total body count of moles 2 mm or larger. The count was performed in mid-winter when freckling would be expected to be low. Children under the age of 12 had their moles counted by a parent. Families were contacted after a few days by the observer (PL) to arrange to count the subjects' moles (all sizes, all parts of the body) at home. The observer was blind to the patients' self counts.

ANALYSIS

Data were entered and analysed with the spss package. Median values, 90th and 95th centile, and Spearman's correlation coefficients were used to avoid assumptions of normality for distributions of mole counts (which are skewed) and other artificial scales—for example, sunscreen use during leisure time. Confidence intervals were calculated with CIA. The Bland-Altman plot³⁰ was used to assess the mean difference between observer and patient measurements and the relation between the difference and measurement level.

Results

Of the initial 237 subjects (from 67 families) initially sent a questionnaire, 219 (92%) took part. In all, 199 (84%) returned the questionnaire, and 212 (89%) agreed to be examined. The study population (113 male, 106 female) had a preponderance of social classes I and II (50.2% compared with 25% nationally) and of subjects under the age of 16 (43% compared with 20% nationally).

PREVALENCE OR RISK FACTORS AND CORRELATION OF MOLE COUNTS

Tables I-III summarise the main results. Table I uses a pragmatic definition of the phenotype of the atypical mole syndrome and atypical moles according to previous descriptions.¹⁶ Table III uses a cut off of the top 10% of the whole study population, equivalent to the top 15% for the adult group (over 15 years) alone, for pragmatic reasons: the workload implications for self screening are not yet clear, and to counsel more than 10%-15% of the population would become impracticable. The lower correlations for moles of ≥ 4 mm and the head and neck for all sizes (table II) probably reflect lower numbers of moles.

CHANGES IN MOLES

In the adult group six out of 114 subjects (5.3%; 95% confidence interval 2.0 to 11.1%) reported

TABLE I—Prevalence of risk factors for melanoma in study population. Values are numbers (percentage; 95% confidence interval) unless stated otherwise

Risk factor	Age group (years)		Total	Odds ratios from case-control studies*	
	0-15	> 15		Range	Reference (this article)
Fair, blond, or red hair	26/84 (31; 21.3 to 42)	19/115 (16.5; 9.7 to 23.3)	45/199 (22.6; 16.8 to 28.4)	1.1-14.3	5,8-11,19,26
Always burn (severe acute reaction)	7/83 (8.4; 3.5 to 16.6)	13/116 (11.2; 5.5 to 16.9)	20/199 (10.1; 5.9 to 14.2)	1.7-3.5*	8-10,18,19
Freckles (reported)	10/80 (12.5; 6.2 to 21.8)	19/113 (16.8; 9.9 to 23.7)	29/193 (15.0; 10.0 to 20.1)	1.5-6.2	5,8,9,19
Frequent severe childhood sunburn	0/83 (0.0; 0.0 to 4.4)	14/107 (13.1; 6.7 to 19.5)	14/200 (7.0; 3.9 to 11.5)	1.3-12.0	8,18,19,24
Frequent severe adult sunburn	NA	8/114 (7.0; 3.1 to 13.4)	8/114 (7.0; 3.1 to 13.4)	1.7-3.8	8,10,11,18,21,22,25
Regular (> 10) childhood sunbathing or beach holidays	7/84 (8.3; 3.4 to 16.4)	22/111 (19.8; 12.4 to 27.2)	29/195 (14.9; 9.9 to 19.9)	1.4-5.1	23,24
Regular (> 20) adult sunbathing or beach holidays	NA	10/113 (8.9; 4.3 to 15.7)	10/113 (8.9; 4.3 to 15.7)	1.6-1.7	18,20,24
≥ 100 moles (≥ 2 mm)	0/92 (0.0; 0.0 to 3.9)	5/120 (4.2; 1.4 to 9.5)	5/212 (2.4; 0.8 to 5.4)	3.7-54	4-8,10,11
≥ 50 moles (≥ 2 mm)	6/92 (6.5; 2.4 to 13.7)	22/120 (18.3; 11.4 to 25.3)	28/212 (13.2; 8.7 to 17.8)	3.7-54	4-8,10,11
Atypical mole syndrome phenotype	4/92 (4.4; 1.2 to 10.8)	5/120 (4.2; 1.4 to 9.9)	9/212 (4.3; 2.0 to 7.9)	7	16
Atypical mole	2/92 (2.2; 0.3 to 7.6)	9/120 (7.5; 3.5 to 13.8)	11/212 (5.2; 2.6 to 9.1)	2.8-70.4	4,10,11,16

Childhood: as a child age ≤ 15 .

Frequent severe sunburn: $\geq$ five episodes of pain, blistering, or erythema lasting ≥ 48 hours.

Sunbathing or beach holidays: holidays lasting a week or more, when sunbathing or being on the beach were the main activities.

Freckles: "more than average" or "many obvious and large freckles."

Atypical mole: large flat mole (≥ 4 mm) with three or more features (erythema, colour variation, ill defined margin, irregular edge, asymmetry).

Atypical mole syndrome: three out of six features (a) high mole count of moles ≥ 2 mm (≥ 50 moles if age < 16 ; 100 mole or more if age ≥ 16); (b) one or more atypical mole; (c) iris freckles; (d) moles in unusual sites (two moles ≥ 2 mm or one large mole ≥ 4 mm) on scalp, ear, hand, foot, sole, or palm; (e) moles on covered skin (two moles ≥ 2 mm or one large mole ≥ 4 mm) on breast or buttock; (f) family history of melanoma or melanoma in multiple sites.

*For exposure group closest to current study.

TABLE II—Individual body site mole count by observer and correlation of site count with total body count. Figures are median values (90th, 95th centile; Spearman's correlation coefficient)

	Age group (years)					
	0-15 (n=92)		> 15 (n=120)		Total	
	Moles $\geq$ 2 mm	Moles $\geq$ 4 mm	Moles $\geq$ 2 mm	Moles $\geq$ 4 mm	Moles $\geq$ 2 mm	Moles $\geq$ 4 mm
Right arm	0 (8,8; $r=0.90$)	0 (1,1; $r=0.62$)	3 (14,18; $r=0.82$)	0 (1,1; $r=0.39$)	2 (9,14; $r=0.87$)	0 (1,1; $r=0.47$)
Left arm	0 (5,8; $r=0.87$)	0 (0,1; $r=0.36$)	3 (15,19; $r=0.75$)	0 (1,2; $r=0.37$)	2 (10,15; $r=0.84$)	0 (1,1; $r=0.39$)
Right leg	1 (3,8; $r=0.72$)	0 (0,1; $r=0.51$)	2 (10,15; $r=0.70$)	0 (1,2; $r=0.38$)	1 (8,12; $r=0.73$)	0 (1,1; $r=0.44$)
Left leg	0 (4,8; $r=0.75$)	0 (0,1; $r=0.57$)	2 (11,15; $r=0.71$)	0 (1,1; $r=0.25$)	1 (8,13; $r=0.75$)	0 (1,1; $r=0.38$)
Front of trunk	0 (4,6; $r=0.69$)	0 (0,1; $r=0.35$)	2 (11,13; $r=0.70$)	0 (3,6; $r=0.68$)	1 (7,11; $r=0.76$)	0 (2,3; $r=0.65$)
Back of trunk	1 (7,9; $r=0.89$)	0 (2,3; $r=0.84$)	4 (14,18; $r=0.76$)	0 (4,5; $r=0.65$)	2 (12,16; $r=0.84$)	0 (3,4; $r=0.72$)
Head and neck	0 (4,7; $r=0.75$)	0 (0,1; $r=0.45$)	2 (6,6; $r=0.56$)	0 (1,2; $r=0.31$)	1 (5,7; $r=0.66$)	0 (1,2; $r=0.37$)
Total	4 (33,56)	0 (3,5)	21 (68,85)	1 (9,18)	14 (56,70)	0 (7,11)

TABLE III—Patients' self note counts compared with observer's mole counts. Values in parentheses are 95% confidence intervals unless stated otherwise

Cut off values	Sensitivity (%)	Specificity (%)	Positive predictive value (%)	Mean difference (SD Spearman's coefficient)*	Spearman's coefficient†	κ
> 50 moles $\geq$ 2 mm on whole body	50 (21 to 79)	95 (90 to 98)	50 (21 to 79)	-0.96 (31.5; $r=0.09$)	0.39‡ (n=139)	0.45 (0.15 to 0.75)
> 7 moles $\geq$ 2 mm on trunk	79 (54 to 94)	97 (93 to 99)	75 (51 to 91)	-0.08 (3.2; $r=0.02$)	0.66‡ (n=186)	0.74 (0.58 to 0.90)
> 1 mole $\geq$ 4 mm on trunk	71 (51 to 87)	96 (91 to 98)	74 (54 to 89)	0.08 (1.0; $r=0.06$)	0.64‡ (n=186)	0.68 (0.52 to 0.84)
> 10 moles $\geq$ 2 mm on right arm	31 (11 to 59)	95 (91 to 98)	38 (14 to 68)	-0.26 (4.2; $r=0.06$)	0.68‡ (n=190)	0.29 (-0.01 to 0.59)
> 1 mole $\geq$ 4 mm on right arm	60 (15 to 95)	97 (94 to 99)	38 (9 to 76)	0.11 (0.8; $r=0.17$)‡	0.40‡ (n=190)	0.44 (0.04 to 0.84)

Sensitivity, specificity, positive predictive values, and kappa all relate to categorical data generated by cut offs defined in table (approximately top 10% of distribution of whole population for each variable).

*Bland-Altman plot ($y-x$ v $(y+x)/2$). Data refer to all values (no cut off used).

†Simple plot (y v x). Data refer to all values (no cut off used).

‡ $P < 0.002$ for values of Spearman's coefficient in table (otherwise values not significant).

major changes and 15 subjects (13.2%; 7.0 to 19.4%) reported any change in moles in the past three months. Changes in moles in children are more difficult to interpret because of the normal changes associated with the development of moles.

CORRELATION OF PATIENTS' COUNTS WITH OBSERVER'S COUNTS

Patients' mole counts for the right arm and the front of the trunk correlated reasonably well with the observer's counts for the same sites (table III). For mole counts of the arm the patient-observer correlation was higher for the individuals with fewer than average freckles ($r=0.72$) than for the individuals with average or more than average freckles ($r=0.56$), whereas for trunk counts increased freckling does not reduce the correlation ($r=0.76$) for average or more than average freckles. For social classes III-V Spearman's rank correlations for self counts compared with the observer's counts for arm and trunk moles of ≥ 2 mm were 0.63 and 0.67 respectively—that is, comparable to the whole group. With the exception of lower sensitivity, sensitivity, specificity, positive predictive value, and κ in social classes III-V are comparable to those in the whole group for counts of trunk moles of ≥ 2 mm (56%, 97%, 71%, 0.59 respectively) and trunk moles of ≥ 4 mm (58%, 100%, 100%, 0.71 respectively). Compared with the whole group the adult group alone ($n=107$) had better figures for sensitivity, specificity, predictive value, and κ for trunk moles of ≥ 2 mm (81%, 97%, 81%, 0.78 respectively). If the cut off is reduced for patient and observer—for example, to the 50th centile—the validation characteristics of arm counts of moles of ≥ 2 mm improve (sensitivity, specificity, and predictive value were all greater than 70% for counts of both arm and trunk moles).

WITHIN FAMILY MOLE COUNTS AND SUN PROTECTION BEHAVIOUR

When individuals' mole counts and their family members' counts were corrected for age (by dividing the value by the mean for that five year age band) the subjects' mole counts showed little correlation with the mean for other family members ($r=0.11$, $P=0.06$). The correlation between an individual's and other

family members' mole counts was still low if the predicted value for age from regression equations was used to correct for age ($r=0.20$, $P<0.01$). Such low correlations may partly reflect variability in the timing of development of moles in young children or the difficulty of adequately modelling the effect of age, or both these factors.

Sun protection behaviour in midday summer sun (on a scale of 1 (always use sunscreen) to 6 (never use sunscreen)) correlated significantly with the mean or median value for other family members ($r=0.50$, $r=0.44$ respectively, $P<0.002$). For individuals who used a sunscreen "less than half the time" in midday summer sun most (70/105 (67%, 95% confidence interval 58% to 76%)) had families whose median sunscreen use was also less than half the time. If only individuals who "usually" or "always" burnt are considered then the correlation between individual and family use of a sunscreen was even stronger ($r=0.54$ and $r=0.60$ for median and mean family values respectively), and subjects who use a sunscreen "less than half the time" in midday summer sun were even more likely to have a family whose median use was also less than half the time.

Discussion

This study concerns assessment of risk factors for melanoma in a relatively young and affluent British general practice population. The comparability with other studies of the adult median mole count and correlations between site counts and total count^{6 12 28 29 31 32} and the comparability of the validation data for the lower social classes and for adults alone with the data for the whole group suggest that it may be possible to extrapolate these findings to other practices and settings. To demonstrate the generalisability of these findings and for tighter confidence intervals further studies are needed.

Risk factors for melanoma include high mole counts, freckling, high social class, fair or red hair, tendency to burn, frequent severe sunburn, and probably atypical moles.^{4-11 18 19 21-26 33} On the basis of the nearest categories to a British study that demonstrated freckling, high mole count, and high social class as independent risk

factors,⁸ 6/109 (5.5%) adults in the present study have both many moles and freckles, and 28/109 (25.7%) have either factor. Individuals with both factors (odds ratio 21, 25/187 of the cases⁹) or either factor (120/187 of the cases⁹) had a conservatively estimated 0.5%-1% and 0.1%-0.2% 10 year chance respectively of developing melanoma.⁸ These estimates are probably increased twofold to threefold by either high social class or severe sunburn,^{8,18} a further twofold to threefold increase if the population incidence is 1-2 per 10000 per year,¹⁻⁸ and a further 10-fold increase with less conservative British estimates of risk associated with moles.⁴ We need further research to see how much reinforcement by health professionals (if any) is needed to change the behaviour of high risk individuals after self screening, to assess if screening results in earlier diagnosis and reduced mortality, and to document costs such as increased workload and patient anxiety.³⁴

Individuals commonly report changes in moles: 13% of the adult study population had reported some change in a mole during the previous three months and 5% a major change. If patients are asked to attend the surgery if they see changes in moles doctors should be aware of the workload implications and perhaps suggest that major changes only should be reported.

The validity of mole counts by untrained patients on different body sites has been documented in this study. High mole counts by patients on the front of the trunk (but not the arm) were reasonably sensitive and predictive of the observer's mole counts, which suggests that high risk individuals could assess their own melanoma risk. The difference between arm and trunk counts at high values may relate to the difficulty of seeing moles on the back of the arm and to freckling. At lower cut offs—for example, the 50th centile—the validation characteristics for arm mole counts improve. Further research is needed to confirm these observations in different settings and to assess possible costs and benefits of self screening. We also need to assess other screening methods—for example, arm mole counts when measuring blood pressure.

The within family correlation of sunscreen use during leisure time indicates that sun protection behaviour is associated within families. For individuals who do not protect their skin against the sun, it would be worth while emphasising that other family members should also be careful about sun protection.

The prevalence of the phenotype of atypical mole syndrome and atypical moles in this study is comparable to that in other populations.^{16,35} Clinical definitions of atypical moles or the atypical mole syndrome are limited by the subjective nature and number of features defining the term atypical, the number of atypical moles and other features defining the atypical mole syndrome, and changing criteria—for example, since the study began.^{16,36} Furthermore, most studies have not estimated the risk associated with atypical moles or the atypical mole syndrome. Before atypical

moles or the associated syndrome can be useful in primary care screening, the issues of definition, risk, and training requirements need clarifying.

In conclusion, individuals with multiple risk factors for melanoma or who report changes in moles are likely to be common in practices with affluent patients, and sun protection behaviour is associated within families. Self screening with trunk mole counts may help to identify high risk individuals. Further research is needed to confirm the validity, adverse effects, and net benefits of screening for risk factors for melanoma in primary care.

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Key messages

- High mole counts have been consistently found to be an important risk factor for melanoma
- Simple self screening of trunk moles may be feasible to identify high risk individuals
- Sun protection behaviour is associated within families
- Advice about changes in moles should emphasise the need to report only major changes (size, shape, colour), otherwise the assessment workload may increase substantially

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Commentary: Screening for melanoma risk is misguided

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With an incidence of malignant melanoma of 1 in 10 000 a year^{1,2} a general practitioner with a registered list of 2000 patients will see about one new case every five years. Risk factors for melanoma have been identified, and one strategy for prevention is to target those at higher risk for more intensive advice on reducing their exposure to the sun and on what to do if moles change. This study investigates in an "affluent practice" some aspects of the feasibility of such a strategy. But is the strategy worth investigating at all?

In this study 18% of adults were found to have high mole counts, while 5.5% had both freckling and high mole count. Five per cent of all adults reported "major" change in a mole in the preceding three months. Johnson *et al* estimate that at least 4% of a general practitioner's list have a fivefold or greater relative risk of developing a melanoma.³ Implementing a strategy of intensive counselling of high risk individuals therefore involves getting the entire population to count their moles and provide other information pertaining to melanoma risk, and then labelling around

5% of the adult population as having an increased risk of melanoma. Screening for disease may generate anxiety.⁴ This strategy would have significant adverse consequences in this respect.

No evidence yet exists that such a strategy would reduce mortality. Cochrane and Holland stated that as an ethical prerequisite for a screening programme there should be conclusive evidence that screening can alter the natural course of disease in a significant proportion of those screened.⁵ Johnson *et al*³ estimate that a randomised trial of this strategy aiming at detecting a 20% reduction in mortality would require 100 000 high risk adults in each arm and would need to involve all adults living in at least two health regions in Britain.

The implementation of this strategy would substantially increase the workload of practices. The screening process itself is complex, and the consultation rate in connection with pigmented lesions would increase. Given a 5% rate of reported major change in moles in the adult population every three months, the rate of their excision and submission for histology would increase substantially. The concept of prioritising practices for screening for melanoma risk according to the age or social class distribution of their patients is unacceptable.

The authors of this study have not made any assessment of the psychological effects of their screening method or assessed its effect on practice workload or health service costs. Feasibility studies of possible screening strategies that fail to address these issues should not be undertaken. Further research on the prevention of melanoma and death from melanoma should concentrate on finding better methods of communicating the message that sunburn is bad for you to the general population, and on improving doctors' skills in early diagnosis.

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A MEMORABLE PATIENT

My little girl

It is a little disconcerting to walk into a gynaecology ward hearing a hysterical woman scream, "You're trying to murder my little girl." It was even more disconcerting to realise that she had been admitted under my consultant's care. Soon the story unfolded. A 28 year old woman with a long history of primary subfertility had been admitted with six weeks' amenorrhoea, lower abdominal pain, and light vaginal bleeding. An ultrasound scan could not find any evidence of an intrauterine pregnancy and we were trying to persuade her to have a laparoscopy to exclude an ectopic pregnancy. She did not want this. "You want to kill my little girl," she insisted over and over again.

Finally, as her symptoms worsened, she agreed to a laparoscopy without uterine instrumentation. At operation she was found to have blood in the pouch of Douglas and an unruptured tubal ectopic. A laparotomy and salpingotomy were performed with evacuation of the ectopic pregnancy, which was confirmed on subsequent histological examination.

Afterwards the woman became extremely depressed and withdrawn although slightly calmer. She kept repeating, "I know my little girl is all right," despite our extensive counselling to her and her husband that she had had an ectopic pregnancy. Four days later she went home.

Her general practitioner sent her back to the clinic

10 days later. He was concerned about her mental state and thought that she was becoming psychotic. She was crying, depressed, agitated, and kept repeating, "I know my little girl is all right." After discussing matters with our psychiatric colleagues we organised a pelvic ultrasound to challenge her and prove that having had an ectopic pregnancy she could no longer be pregnant.

To our immense surprise the scan showed a seven week intrauterine pregnancy. This lady had had a concomitant pregnancy, one pregnancy developing in the fallopian tube and one in utero. Concomitant pregnancies are rare, occurring once every 30 000 to 50 000 pregnancies. Her mental state improved dramatically and she had a trouble free pregnancy. A normal delivery at term was complicated only by a retained placenta.

This woman taught me that no matter how absurd a clinical situation might be, no matter how odd or difficult the patients might seem, listen to what they are saying, even if, on the face of it, what they are suggesting might be apparently impossible. Rare things do happen rarely and listening to the patient can lead to the correct diagnosis being made. Oh, and by the way, she had a little girl.—
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