Letter to Dermatology

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Melanoma Screening

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The article by Braun et al. [1] explores the effect of efforts to screen for melanoma in Switzerland as part of the Euromelanoma project, where media campaigns and a yearly melanoma day are the means to get people screened with a full body inspection and dermatology screening. As the authors correctly note, the question of melanoma screening is important and controversial. Our group has just published a protocol for a Cochrane review on this question [2], and the US Preventive Services Task Force has just issued updated guidelines on skin cancer screening [3]. The Task Force gave the intervention an "I" recommendation, which means that there is insufficient evidence to balance benefits against harms. This means that the major benefit (a reduction in skin cancer mortality) is unproven and that the major harm (overdiagnosis of skin cancer with ensuing overtreatment) is a concern, but that the magnitude is unknown. There is only one randomised trial, which never finished due to lack of funding. As the authors correctly note, the initial enthusiasm based on a German non-randomised study that compared regions with and without screening has been dampened, as further follow-up showed no significant benefit.

There are at least 3 major problems with this paper:

1 The authors simply assume that the intervention provides benefit and use this assumption to conclude that the programme prevents costs of treating late-stage melanoma and that it is cost-effective. However, the study provides no documentation that late-stage melanomas are prevented, or any cost-benefit analyses to support this conclusion.
2 The paper makes no comment whatsoever on the harms of the intervention, although their numbers indicate substantial false-positive rates and considerable unnecessary anxiety from the programme. The authors found that 39% of the 2,782 participants who filled out a questionnaire needed some kind of follow-up. Even taking self-selection into account, this is grossly disproportionate to the problem that skin cancer constitutes in society. This is underlined by the fact that 402 participants had an excision/biopsy. As only 8 turned out to have malignant melanoma, and 25 had other types of malignancies that have very low mortality even when detected clinically, we must conclude that the efforts with Euromelanoma have led to massive false-positive rates and massive overtreatment with substantial anxiety caused. In addition to the 402 participants who had a surgical intervention, 685 were recommended a control visit. The authors do not mention what psychological consequences this may have had or whether the suspicion of malignancy inherent in such a recommendation could negatively affect people's quality of life.
3 Low response rates (only 263 of 1,087 participants agreed to be followed up) make outcomes and conclusions unreliable, but this is not mentioned as a limitation.

To sum up, the authors base conclusions on assumptions of a benefit that may not be there, and they ignore the important harms that are at the core of discussions about this intervention, even though their own data indicate massive problems with false-positives and overtreatment. The question raised in the title; "do we do the right thing?" therefore cannot be answered in this paper.

The authors need to look much more critically at this. An example of the focus on benefit is the first sentence of their introduction: "Switzerland has the highest incidence in melanoma in Europe and a long tradition in participating in skin cancer prevention campaigns." Perhaps the high incidence is caused by the long tradition of participating in skin cancer prevention campaigns? The incidence of skin cancer has increased multiple-fold in many countries, while at the same time the mortality rate has remained fairly constant. This is a well-recognised marker that should lead to suspicions of overdiagnosis. A key reference that is missing from this study is, therefore, that of Welch et al. [5], who discuss skin biopsy rates and incidence of melanoma in a population-based ecological study. This development is clear in my own country, Denmark, which has very reliable incidence and mortality data (Fig. 1).

We criticised the Danish version of the Euromelanoma campaign [6]. It recommends that everyone should check each other's skin every 3 months, including children. You should be completely undressed and check everywhere, also "between the toes, underneath breasts, the soles of your feet – melanoma can appear everywhere." Considering that the lifetime risk of dying from melanoma is 2%, and virtually non-existent in children, these recommendations of very frequent checking with no evidence base are testimony to the overenthusiasm for prevention, and tendency to ignore its substantial harms, on behalf of many doctors. The scientifically unfounded Euromelanoma recommendations are sure to create much anxiety, overdetection, overtreatment, and undue focus on the condition – time which could be spent on better things.

This Letter to Dermatology includes the comments made by one of the reviewers during the reviewing process of the paper by Braun et al. [Dermatology 2017, DOI: 10.1159/000484946].

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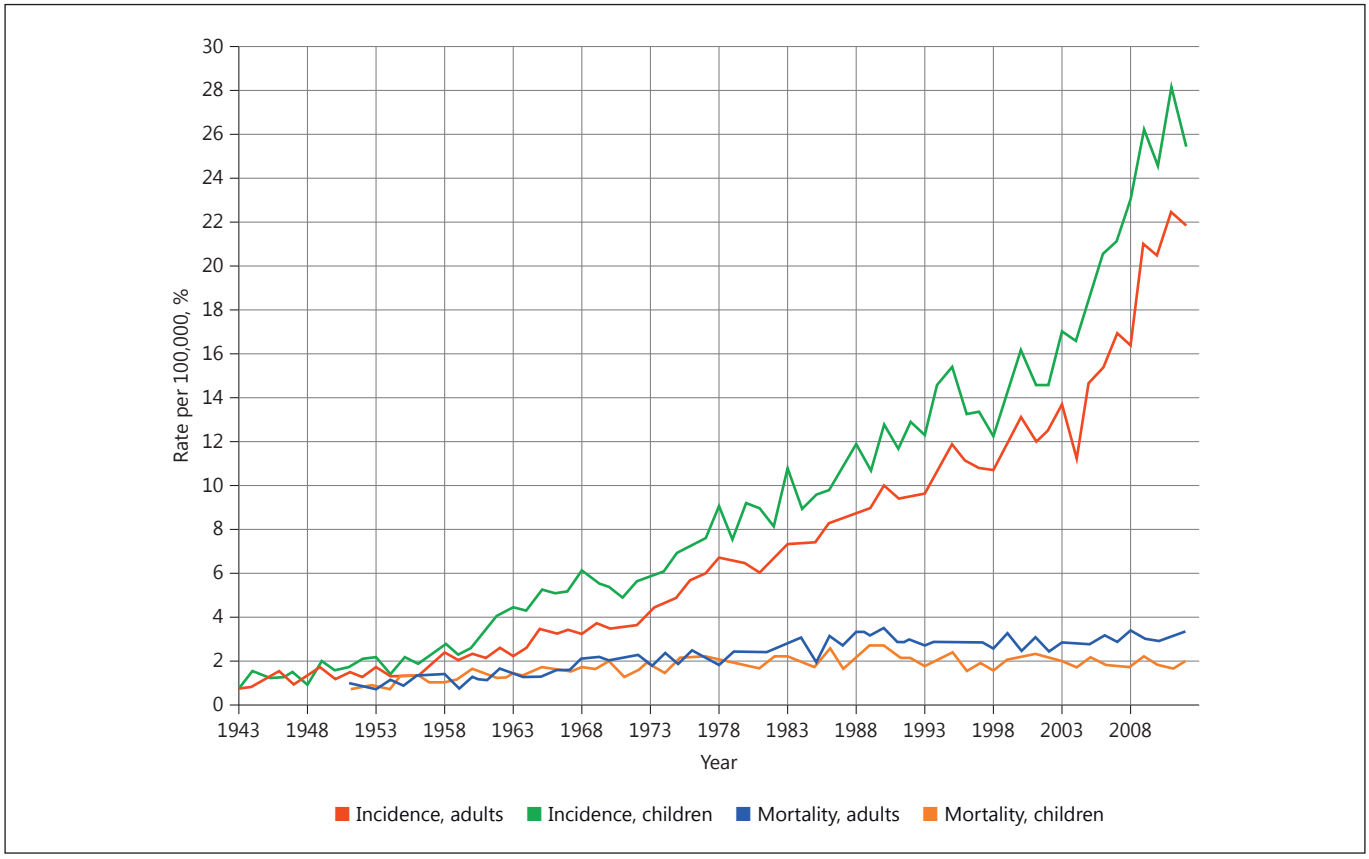

Fig. 1. Incidence and mortality rates of melanoma in Denmark (age from 0 to 85+ years). Data from the NORDCAN database [4].

One last question: the authors estimate that it would cost EUR 280,000 to screen "2,782 patients" (sic!). These are healthy people to begin with, not patients – this is a prevention programme, but the choice of wording indicates that everybody is automatically considered a patient, which is highly problematic. Of course, this intervention turns about 40% of them into "faithful customers," as the authors also describe them. This is a substantial amount, and screening the entire Swiss population would thus represent quite a large sum of money. I assume that practically all of this money would go to those who screen, i.e., the dermatologists. All authors of this paper are dermatologists, yet they declare "no conflict of interest." Really?

Key Message

Melanoma screening exists without evidence and should not be performed outside a randomised trial due to serious harms.

Disclosure Statement

The author declares that he has no conflicts of interest in this issue.

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