Eye (2004) 18, 1–2

www.nature.com/eye

EDITORIAL

Breast cancer—should ophthalmologists now be involved in screening?

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Eye (2004) **18,** 1–2. doi:10.1038/sj.eye.6700534

What is the commonest intraocular tumour? The majority of ophthalmologists if answering from their own clinical experience would pick uveal malignant melanoma. Indeed, two publications from the Wills Eye Hospital reporting referral of only 420 metastatic tumours compared to 3000 malignant melanomas over similar 20 year periods would appear to confirm this.[1,2] However, pathological and autopsy studies in the literature from the 1960s onwards indicated that up to 10% of patients dying of malignant disease may have uveal metastases,[3,4] with an estimated 66 000 patients having ocular metastases in the USA alone in 1993.[5] So why is there such an apparent disparity between the reported incidence of uveal metastases in the literature and clinical experience? Possible confounding factors are patient survival and under diagnosis. Patient survival after diagnosis of uveal metastases is relatively short (median time of 7 months),[6] whereas patients with uveal melanoma may survive up to 40 years even after metastatic seeding has taken place.[7] Under diagnosis of uveal metastases may occur either if patients are asymptomatic, or if their ocular symptoms are overshadowed by their general debility.

The potential visual disability because of metastases is considerable—one-third of patients with uveal metastases have visual acuity of 6/60 or less at presentation and up to one-quarter will have bilateral disease.[1] While the results of treatment (mainly radiotherapy) are encouraging, a majority of patients maintain vision rather than showing an improvement.[8,9] Consequently, patients presenting with a poor visual acuity are likely to remain significantly visually impaired even if treatment is successful. Given the generally poor prognosis and patients' debility, we are duty bound to try and maximise their quality of life. Patients presenting with poor acuity may have a better outcome if the uveal metastases had been detected and treated at an earlier stage. As metastatic tumours grow rapidly, a screening programme could be the way to achieve this. However, one in three patients with uveal metastases have no history of cancer at the time of presentation, and in up to one in five a primary is never identified.[1] Lung cancer can be responsible for up to one-fifth of cases, but the majority of these will have presented with the uveal metastasis rather than the primary.[1] On the other hand, when metastases occur in patients with a previous history of cancer, up to two-thirds will have breast cancer.[1] Reported studies on patients with advanced breast cancer and metastatic disease have noted uveal metastases in up to 10% of asymptomatic patients,[8,10] and 37% of patients dying with breast cancer having microscopic uveal metastases.[3]

The above facts could fuel an argument for screening patients with advanced or metastatic breast cancer for evidence of early (sight threatening) uveal metastases. Screening is an attractive idea with the 'stitch in time, saving nine', being the basis for the enthusiasm. However, it is important to be aware of the hidden costs of screening in performing numerous examinations on unaffected individuals, and to be able to demonstrate a definite benefit in early detection. Good evidence is required if we are to avoid haphazard uncoordinated screening as a result of local enthusiasm. The decision to screen should be an 'all or none' decision, based upon evidence showing that the intervention is effective and the resources are available to deliver a high-quality service to the population as a whole.[11–13]

The paper from Fenton on screening for uveal metastases for breast cancer[14] is a very welcome addition to the evidence. Patients with

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advanced disease, one-third of them with previously identified high-risk factors for uveal metastases,[10] were studied over a 6-month period. However, while there was evidence of ophthalmic disease, none developed uveal metastases. Their conclusion not unsurprisingly was that routine screening for asymptomatic uveal metastases in patients with metastatic breast cancer should not be performed. While these results may seem to contradict previously reported studies, uveal breast metastases are sensitive to chemotherapy[15] and its increased use in breast cancer management could have had an influence.

This undoubtedly will not be the last word on the matter; individual values and resources also come into decisions regarding screening.[13] However, at present there is not enough evidence to suggest that ophthalmologists should have an active role in screening patients with metastatic breast cancer for uveal metastases. If any screening does take place as a result of local enthusiasm, it needs to be closely audited, and the results made known.

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