



Figure 2 (a) *In vivo* confocal microscopy showing plenty of linear fungal filaments ($\times 800$). (b) *In vivo* confocal microscopy showing double-walled acanthamoeba cysts ($\times 800$).

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Sir, Screening for wet AMD by optometrists: resistance to change or professional rivalry?

I commend Ellis *et al* (*Eye* 2006; **20**: 521–522) on very clever disguise of their own resistance to change by use of eloquent but nonscientific arguments, clichés, and anecdotes. In simple English, there are following questions that need to be answered before screening for any disease is considered:¹

1. Is the condition important for individuals or the community?
2. Is there effective treatment or management of the condition?
3. Is the condition's natural history, especially its evolution from latent to overt, understood?
4. Is there a recognisable latent or early stage?
5. Is there a valid and reproducible screening test?
6. Are facilities available for management of the positive findings, both true or false?
7. Is there an agreed management policy?
8. Does this management favourably influence the course of the disease?
9. Is the cost of case finding and management acceptable in relation to the overall costs of health care?
10. Do the potential benefits to true positives outweigh the potential disadvantages for the false positives?

With latest results of antiangiogenic therapies,² and advances in diagnostic technology,³ I believe the answer to all of the above, except questions 7 and 9, is already

'yes' for opportunistic screening of wet age-related macular degeneration (AMD) by trained optometrists. In fact, one of the world's top experts in AMD believes that a much wider screening solution in the population at risk of developing wet AMD should be sought (Personal communication, Dr N Bressler, Wilmer Eye Institute, Johns Hopkins University Hospital, Baltimore, MD, USA, April 2006). As far as cost of treatment is concerned, the growing use of intravitreal injection of diluted (1.25 mg) Bevacizumab (Avastin) in an outpatient setting as currently practiced in US (Observation at a Southern California University hospital, USA, April 2006) will bring down the cost dramatically. The attempt by the proposed patient pathway for detection and treatment of macular degeneration is to suggest a consensus for a management policy among the various health professionals, so that the answers to these questions also becomes 'yes' in the UK healthcare system. Ellis *et al's* article seems to be trying to object to that very consensus. The article left a 'nagging feeling' that it was their attitude to the use of an expert optometrist rather than the proposed pathway that was making 'a bad situation worse.'

Could it be a case of professional rivalry between ophthalmologists and optometrists, I wonder?

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Sir,
Reply to Dr Verma

Dr Verma restates Wilson and Jungner's¹ principles of screening. As these principles have been debated at length elsewhere, and reference frequently made to how few of them are actually satisfied by the majority of our existing societal screening programmes,^{2,3} I propose to address only the fifth; namely, the requirement for a valid and reproducible screening test. I feel entitled to address this issue because it was actually the point of our editorial,⁴ and Dr Verma adds usefully to the debate on this subject drawing our attention to a recent paper from the Preferential Hyperacuity Perimetry Research Group.⁵ He also highlights points 7 and 9, which are indeed crucial to the wider debate, but do not affect our argument, namely that more prediagnostic steps merely threaten to reduce the yield of screening.

Economics aside, reducing yield is a serious concern for health professionals who wish to help as many patients as possible with this disabling and highly prevalent condition. However, of course, one cannot put economics aside. The opportunity cost of screening for and treating ARMD must be considered responsibly within the broader obligations of the NHS to all patients and all diseases. As Dr Verma correctly states, addressing the ninth point in his letter, advances in treatment such as Bevacizumab (although probably not PDT, Pegaptanib sodium, or Ranibizumab) promise highly acceptable management costs. This is entirely independent of the cost of case-finding, however, which is the other half of point 9, and which we dealt with briefly in our editorial.

If we are to reliably detect and promptly refer people with early neovascular ARM, what we need is a good screening test. A test that is safe, preferably inexpensive, and certainly valid (has acceptable sensitivity and specificity). Early indications, which still need confirmation by other workers, indicate that PHP may fulfil this role. This is indeed exciting news. The test will still be opportunistic, unless the government embraces the concept of a formal screening programme of course, so by no means everyone will benefit. However, that is unduly disingenuous. We have to start somewhere and where better than with improving early detection in second eyes and self-referring elderly patients in the high street. If the test lives up to its early promise and is operator independent, the real goal surely would be to roll this out to all optometric practices. Why have two tiers of optometrist when, as we have argued, it is inherent to such a hierarchy that more cases will be missed? In other words, our original question: What will the new optometrist with special interest achieve? is