Cerebral aneurysms

Finding silent cerebral aneurysms: the importance of doing nothing

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Doing nothing can be a good treatment option in patients with an unruptured small cerebral aneurysm

Doing nothing can be a good treatment option whose value is often not appreciated in clinical medicine. The importance of weighing the possibilities, having a second look at the lab test or at an imaging result, and finally suggesting to the patient that they should wait, is not easily understood. To refrain from performing a therapeutic procedure can appear to the patient or their relatives as not giving enough attention to a specific complaint or condition, sometimes even as outright carelessness or negligence. This is because medicine, in its most modern technological sense, embraces the myth of the medical doctor as an activist, hurrying to perform an urgent operation or implant a vital device.

Today, coiling and clipping are the best surgical therapies in unruptured small cerebral aneurysms, but the merits of such intervention have to be measured by the notable risks involved in such interventions. One large, recent review of studies between 1990 and 2003 found high cumulative adverse outcome rates for endovascular coiling and surgical clipping of 8.8% (95% confidence interval (CI) 7.6% to 10.1%) and 17.8% (95% CI 17.2% to 18.6%), respectively.¹ In small aneurysms without a history of previous bleeding, the control of risk factors such as hypertension or smoking might be less risky. It can therefore be advisable to carefully weigh treatment options in patients with an unruptured small cerebral aneurysm on the basis of the patient's risk assessment and individual preferences.²

While many recent studies take into account their patients' well being and satisfaction, there is little agreement on the specific measures to apply: some measure recovery with the Short Form-36,³ and the Mini-Mental State Examination, others use the full version of the SF-36 questionnaire,⁴ and still others use more formal neuropsychological testing such as the Wechsler Adult Intelligence Scale-Revised, the Wechsler Memory Scale, the Rey-Osterrieth Complex Figure test, and CBF measurements using single photon emission computed tomography.⁵

In this issue of the journal, van der Schaaf *et al* (see pages 748–52) have addressed the quite fascinating topic of “finding and not treating” cerebral aneurysms.⁶ They have collected data on patients who had previously been treated for an aneurysm and, on routine screening with CTA/MRA for new aneurysms, had been found to harbour another aneurysm (either a de novo aneurysm or one that had not been previously detected or diagnosed). In such cases an option of not treating was followed and explained to the patient. The effect of “not treating” on quality of life was measured and compared to that of another group of patients who also had a aneurysm that had been previously operated on but who did not have another, second aneurysm at the time of follow up. Although group differences did not reach statistical significance, the results of this study can not be easily generalised. The authors have not controlled for psychological deficits as a long term

consequence of the initial bleeding, such as cognitive deficits caused by vasospasm, hydrocephalus, or other factors resulting in increased intracranial pressure. Therefore, the impact of deciding not to treat on the quality of life might have been misleading due to changes in personality or judgement. Secondly, patients' agreement with the no treatment option might have been biased due to experiences following the first bleeding. Recalling pain and distress during the previous incident might influence the decision to avoid another surgical or coiling procedure. In spite of limited generalisability and the lack of statistical significance, the merits of this study are that patient relevant outcomes are being investigated in addition to neurosurgical risk assessment. Future studies on outcome will have to include patients' preferences when reporting such cases.

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