Local resection of choroidal melanoma

For many years the treatment of choroidal melanomas, once the diagnosis had been established with reasonable certainty, was relatively straightforward: the affected eye was removed, a prosthesis fitted, and the patient discharged. For those of us currently involved in the management of such patients, life is not so simple. In the past few decades the ophthalmic literature has been laden with papers advocating new approaches to the treatment of these lesions. Although these treatment modalities may differ, all are motivated by the desire to preserve the eye and, hopefully, useful vision, while still eradicating the primary tumour. These techniques include photocoagulation, radiotherapy (either local plaque or external beam), and local resection. It is perhaps the latter which evokes the most controversy. Champions of this technique point to the excellent visual results which can be obtained in skilled hands; the less enthusiastic point to the theoretical risks of local, or even distant, dissemination of tumour cells during surgery, and to the dangers of incomplete excision.1 Support for local resection is hampered by the paucity of published results: hardly surprising considering the rarity of choroidal tumours coupled with the fact that only a handful of surgeons regularly perform this technique. Fortunately, the results of the few series published to date would suggest that patients treated by local resection have survival rates which are comparable with those achieved by enucleation2 or radiotherapy.3 However, it can be argued that such studies lack the necessary numbers or length of follow up to provide the statistical power to prove this conclusively.

In spite of the controversies surrounding the management of uveal melanomas, few ocular oncologists would currently advocate the exclusive use of one modality to treat all tumours. Instead, most clinicians try to select a type of treatment which is likely to successfully eradicate the primary tumour with, if possible, the minimum of side effects; the choice being influenced by many factors including tumour size and location. Our wish to choose the most appropriate form of therapy for each patient, while obviously desirable, is still frustrated by the lack of clearly defined indications for each technique. This month’s issue of the journal contains an important paper by Damato, Paul and Foulds which considers the predictive factors that may influence visual outcome following local resection. The results indicate that nasal tumours and those located more than one disc diameter from either the optic disc or fovea have the best prospect of retaining useful vision following surgery. For those who practise local resection, their results will come as no great surprise; temporal tumours, and those located extremely posteriorly, pose the greatest technical problems during surgery. Nevertheless, the results of this study will assist those clinicians in deciding if local resection is appropriate for a given patient. In addition, the impressive visual results reported in this paper may help enlighten those sceptics who view local resection as merely the first part of a ‘staged enucleation’.

The complexity of this form of surgery should not be underestimated however. Simple line drawings contained within some surgical textbooks, showing beautifully symmetrical scleral flaps, artistically reflected, to reveal well demarcated tumours in an apparent sea of virgin sclera uncluttered by such accoutrements as extraocular muscles or vortex veins, belie the difficulties inherent in this technique. In addition to the surgical problems, the need for profound hypotensive anaesthesia makes heavy demands of the anaesthetist. For the present, the use of this technique should be restricted to centres which not only provide the necessary expertise but can also provide a range of alternative therapies should they be thought more appropriate.

The increasing use of therapeutic alternatives to enucleation has undoubtedly reduced the morbidity associated with this disease. Regrettably, despite these advances, patient mortality appears unaltered. The development of treatment regimes which will either prevent, or effectively treat, tumour related metastatic disease remains the ultimate challenge.

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