Carcinoma of the Prostate - The Need for

A Revision of Category T0?

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The survival of patients with carcinoma of the prostate is not always improved by commencing active treatment at the time of diagnosis. Byar (1) showed that the survival of a group of patients with unsuspected 'localised' carcinoma of the prostate was the same as that of an age-matched control population. Despite this finding it is not universal practice to defer treatment in this group of patients. Clinicians are undoubtedly influenced by the knowledge that in some cases, even with small well-differentiated tumours, metastases will develop (2). Attempts to predict those cases which will do badly have identified several prognostic factors including poor histological differentiation (3,4,5,6,7), age (8,9,10), tumour bulk (3,11) and the presence of a clear margin of resection (3).

A variety of definitions of 'local' disease have been introduced. In some the emphasis is on the extent of the tumour, in others the histological grade (12), the aim of each classification proposed being to improve prognostication and to allow the more logical selection of treatment in this group of patients.

We have reviewed a series of 34 cases of T0 carcinoma of the prostate in an attempt to correlate their clinical progress with the histological features of the tumour at presentation. The aim of this study was to clarify the spectrum of disease represented by the T0 category and to decide whether a revised category was indicated in the interests of appropriate treatment selection.
METHODS

In a series of 159 patients with carcinoma of the prostate presenting consecutively at the prostate clinic, 34 were classified as category T0. All patients had histologically proven carcinoma of the prostate and pathology of the specimens obtained has been reviewed retrospectively. Grading has been carried out by a single pathologist according to the Gleason system (13,14). This grading is carried out at relatively low magnification, five patterns of growth being assigned numbers in order of decreasing apparent histological differentiation. In order to allow for histological variation within the tumour two digits are recorded, first the predominant pattern (by area), then the lesser pattern (by area). For example, a well-differentiated tumour containing areas of poor differentiation would be represented by the figures 2-4. In addition an attempt was made, on the basis of the material available to the pathologist, to assess the amount of tissue involved with tumour. Three categories were chosen: <10% involved; 10-50% involved and >50% involved. This does not correspond exactly to the American categories of A1 focal microscopic tumour involvement, A2 microscopic involvement of one lobe and A2 multifocal or diffuse involvement (15) but it was hoped to get a reasonable measure of the extent of tumour involvement and its relation to grading and prognosis.

At the time of diagnosis all patients had levels of blood urea, creatinine, electrolytes, liver function tests and acid phosphatase determined, together with isotopic bone scan. Out patient follow-up was carried out at three-monthly intervals with clinical examination, full blood count, and acid and alkaline phosphatase on each occasion. In addition isotopic bone scans were repeated at six-monthly intervals or sooner if indicated by bone pain.

RESULTS

Of the 34 cases reviewed 26 were classified as category T0 M0 and four as T0 M1. Four patients who did not have an isotopic bone scan were categorised as MX. The patients' ages ranged from 58-88 with a mean of 72.5 years. Follow-up varied from 1-138 months (mean 22.2 months). During the course of this study eight patients have died but only three of these deaths resulted from malignant disease of the prostate. In six patients the diagnosis was made following open prostatectomy and in one case histology was obtained from a bone biopsy of a secondary deposit. In the remaining 27 patients the diagnosis was made following transurethral resection of the prostate.

Treatment was deferred in 25 cases, primary radical radiotherapy was given in three and six patients received hormonal treatment initially. Of the six patients treated initially with hormonal