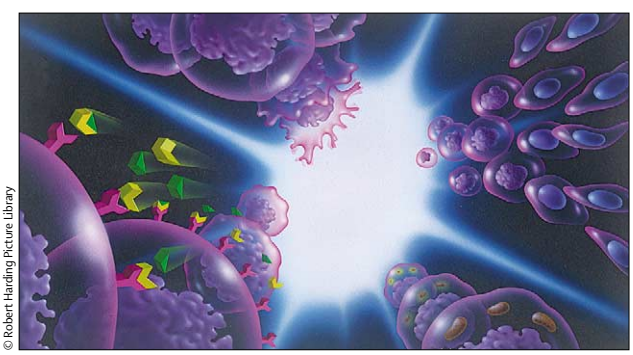
Photodynamic therapy for bladder cancer

A phase I study of 24 patients with recurrent superficial bladder cancer has shown that combination therapy with sequential mitomycin and 5-aminolaevulinic acid (ALA) is safe, well tolerated, and effective. "Further follow-up and study is needed to investigate if the low recurrence rates are sustained, but this combined therapy should be valuable for superficial bladder cancer, particularly carcinoma in situ", comments lead author Rob Skyrme (University Hospital of Wales, Cardiff, UK).



Chemotherapy and PDT are effective in bladder cancer

Previous studies of photodynamic therapy (PDT) in the bladder used porphyrin mixtures, which tended to cause long-term skin hypersensitivity and detrusor damage. "ALA, a precursor of the photosensitiser protoporphyrin IX offers a potentially less toxic option," says Skyrme.

Mitomycin instillation for 1 h was followed by ALA at concentrations of 6%, 8%, or 10%; the light dose, at a wavelength of 635 nm was increased from 0 J/cm^2 to 25 J/cm^2. No substantial side-effects were noted. Some minor effects, such as urgency, frequency, and suprapubic discomfort after urination were recorded, but few patients needed analgesics after treatment. All patients were tumour free for 4 months after treatment. Two cumulative tumour recurrences arose at 8 months, six at 9 months, nine at 18 months, and 11 at 24 months (*BJU Int* 2005; **95:** 1206–10).

"The recurrence rates were low; 11 recurrences in the 2-year period following therapy compared to 29 in this group in the 18 months before enrolment", reports Skyrme, who was encouraged by the finding that of two patients with carcinoma in situ, there was only one recurrence in 2 years of follow-up. "In both cases the disease was difficult to control before PDT with many recurrences despite active therapy with BCG immunotherapy", he says. Future studies will focus on 40 mg mitomycin given intravesically for 1 h, instillation of 6% ALA for 4 h, and followed by light at 25 J/cm^2 to the urothelium.

Kathryn Senior

Proteasome inhibitor for treatment of multiple myeloma

Bortezomib is more effective than high-dose dexamethasone for treatment of patients with relapsed multiple myeloma, according to results from the Assessment of Proteasome Inhibition for Extending Remissions (APEX) trial (*N Engl J Med* 2005; **352:** 2487–98).

"Our study shows that bortezomib is effective in first relapse, as well as [in patients with] more advanced multiple myeloma, [which] justifies strongly its accelerated approval given by the US Food and Drug Administration (FDA)", explains lead author Paul Richardson (Dana-Farber Cancer Institute, Boston, MA, USA).

Richardson and colleagues selected 669 individuals with relapsed or refractory multiple myeloma who had had one to three previous treatments. The patients were randomly assigned to high-dose intravenous bortezomib or dexamethasone. Patients treated with bortezomib had a longer time to progression, a better response rate, and a longer survival than did patients given dexamethasone.

At present, the choice of treatment for patients with relapsed myeloma depends on various factors since there is no generally accepted standard therapy.

Sundar Jagannath (Saint Vincent's Comprehensive Cancer Center, New York, NY, USA) thinks that bortezomib is a true addition to the therapeutic armamentarium for multiple myeloma. "This novel agent is a first in its class and combines well with other chemotherapeutic agents", he notes.

According to Jagannath, bortezomib is the first drug that has shown improvement in survival in individuals who have chromosome 13 deletions—these patients have poor survival after standard chemotherapy, single or double transplantations, as well as after matched unrelated donor (MUD) transplantations.

According to Angela Dispenzieri (Mayo Clinic, Rochester, MN, USA), these important results from the APEX study show, without a doubt, that bortezomib has significant activity in patients with relapsed, refractory multiple myeloma.

But, she cautions that given the limitations of the study design (characteristics of patients; comparative dose intensities; and number of patients censored or lost to follow-up), the results from APEX do not definitively answer the question of whether bortezomib is a more effective drug than dexamethasone. "Both drugs are important to treat patients with myeloma. The discovery of bortezomib's activity in these patients is of great consequence and may well be moving us one step closer to a cure for myeloma", she explains.

Khabir Ahmad