

Hexyl Aminolevulinate in the Detection of Bladder Cancer

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Non-muscle-invasive bladder cancer should be considered an important healthcare problem. Because of its relatively high incidence and characteristically high recurrence rate, the disease probably has the highest prevalence of all malignant tumours, with the exception of those affecting the skin. Improved diagnosis leading to more appropriate treatment is an important factor with respect to decreasing the high rate of recurrence of non-muscle-invasive bladder carcinomas.

Fluorescence cystoscopy with hexyl aminolevulinate (hexyl aminolevulinate cystoscopy) significantly improves the detection of bladder tumours and lesions compared with conventional (white-light) cystoscopy and has a very favourable toxicity profile. Moreover, the number of false positives with this technique is acceptably low. Enhanced detection (and hence more complete resection) of non-muscle-invasive tumours has significant prog-

nostic implications in terms of reducing residual tumour and recurrence rates, as well as reducing the risk of disease progression (in the case of highly malignant carcinoma in situ lesions and aggressive papillary tumours). In a pivotal study, hexyl aminolevulinate cystoscopy improved the detection of bladder tumours and led to improved treatment decisions compared with conventional cystoscopy. Whether these improvements in diagnosis and management with hexyl aminolevulinate cystoscopy translate into better patient outcomes (i.e. lower recurrence rates) – as has been demonstrated for fluorescence cystoscopy with older generation photosensitising agents (e.g. 5-aminolevulinic acid) – is the subject of an ongoing study. However, since hexyl aminolevulinate has pharmacological properties that are better suited to intravesical use and subsequent imaging properties that are superior to those of older agents, it is reasonable to expect that a clear reduction in recurrence rates will be seen with this drug.

In conclusion, hexyl aminolevulinate cystoscopy is a simple and safe procedure resulting in a clinically significant and relevant improvement in the diagnosis and treatment of patients with bladder cancer. ▲