

CHEMOTHERAPY

Final ACT for standard of care in anal cancer?

Chemoradiation with mitomycin and fluorouracil is the standard of care for patients with squamous-cell anal cancer; however, only two-thirds of patients achieve local control. Mitomycin is associated with life-threatening toxic effects, and several phase II studies indicated cisplatin efficacy; therefore, the ACT II randomized phase III trial was initiated to assess whether cisplatin could replace mitomycin, and whether treatment intensification with maintenance chemotherapy could improve survival.

Co-primary investigator, Robert Glynne-Jones explains: “the real strength of the ACT II trial—the largest trial in patients with anal cancer—is that it was performed nationally in the UK in academic, regional and small centres, and at one stage captured around 25% of patients with this cancer in the UK.”

ACT II showed conclusively that after 26 weeks of therapy, complete response and 3-year progression-free survival were



comparable between patients receiving cisplatin or mitomycin. The acute toxic effects were also similar in the two groups. Patients were then randomly assigned to either two courses of cisplatin maintenance therapy or to no maintenance treatment. The progression-free survival was not improved in patients treated with maintenance therapy.

Ultimately, these results show that maintenance chemotherapy, if practiced, can be stopped so that patients can avoid unnecessary treatment. The investigators of the study concluded: “fluorouracil and mitomycin chemoradiation should remain the standard of care for anal cancer. Furthermore, the addition of maintenance chemotherapy in routine clinical practice is not justified.” Because anal cancer is a relatively rare tumour, Glynne-Jones emphasizes future goals: “given the relatively poor effects of all current treatments in more advanced stage cancers (ACT II is no exception), the development of new therapeutic modalities should be a priority in this field.”

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Original article James, R. D. *et al.* Mitomycin or cisplatin chemoradiation with or without maintenance chemotherapy for treatment of squamous-cell carcinoma of the anus (ACT II): a randomised, phase 3, open-label, 2x2 factorial trial. *Lancet Oncol.* doi:10.1016/S1470-2045(13)70086-X