

# Letter to the Editor

## Can we decrease the acute proctitis in prostate cancer patients using hyaluronic acid during radiation therapy: a prospective historically controlled clinical study

Dear Editor,

An acute proctitis of different extension and seriousness may develop during radiation therapy for prostate cancer. It represents a local untoward side effect that can delay or halt the radiotherapy, besides causing a distress to the patient. The possible consequence is the reduction of the expected anti-tumour therapy effect. To reduce such a proctitis, frequently accompanied by diarrhea, various pharmacological agents may be used, as 5-aminosalicylic acid and its precursors, corticosteroid and so on. However the efficacy of such therapy is not satisfactory in all cases, or possibility the symptoms may be worsened. On the other hand, the Na-hyaluronic acid (Na-HA) is safely used also as eye-drop, intra-articularly injected, according to the safety of the drug. Also, it helps against the skin toxicity by Radiotherapy, as cream, gel or spray. Good results have been obtained in preventing or reducing the cystitis radiation<sup>1</sup>.

The recent report by the Fiorica's et al have shown that the use of HA-suppository before the daily radiation fraction reduces the acute rectal toxicity (end point of the study). The results represents only a statistical trend ( $p < 0.04$ ). However, with no negative side effects of such a medication. The comparison of various possible side effects have been performed versus historical controls who did not received the HA nor other rectal medication. We may presume that in the historical reference group of 100 patients, well matched with the H-A treated patients (as from the Table II of the paper)<sup>2</sup>, the radiotherapy rectal toxicity could be under looked owing to "previous" clinical observation. The androgen deprivation therapy (ADT), neo-adjuvant, concomitant or adjuvant to radiation therapy, in many series, seems not increase the rectal toxicity or in small percentage, but this is more to be referred to the higher radiotherapy doses used<sup>3</sup>. It is interesting to consider that instead the use of neoadjuvant ADT represents a variable predictive of late genitourinary (GU) toxicity ( $p < 0.001$ )<sup>4</sup>; therefore, HA may be used in different modality to prevent the relevant GU toxicity.

The use of HA could be increased radiation tolerability in elderly prostate cancer patients that could be vulnerable to radiation due to comorbidities typical of aging<sup>5</sup>.

If HA is provided only to prevent or decrease rectal toxicity, as a consequence a prospective trials should be made, also based on, at least, two levels of HA daily doses.

### References

- 1) SOMMARIVA ML, SANDRI SD, GUERRER CS. Treatment of acute iatrogenic cystitis secondary to bladder chemo-immuno-instillation or pelvicradiotherapy. *Urologia* 2010; 77: 187-192.
- 2) STEFANELLI A, PASCALE G, RAINIERI E, URSINO S, COLELLA M, ZINI G, BERRETTA M, FIORICA F. Can we decrease the acute proctitis in prostate cancer patients using hyaluronic acid during radiation therapy: a prospective historically controlled clinical study. *Eur Rev Med Pharmacol Sci* 2012; 16: 639-645.
- 3) ZELEFSKY MJ, LEVIN EJ, HUNT M, YAMADA Y, SHIPPY AM, JACKSON A, AMOLS HI. Incidence of late rectal and urinary toxicities after three-dimensional conformal radiotherapy end intensity-modulated radiotherapy for localized prostate cancer. *Int J Radiat Oncol Biol Phys* 2008; 70: 1124-1129.
- 4) PEETERS ST, HEEMSBERGEN WD, VAN PUTTEN WL, SLOT A, TABAK H, MENS JW, LEBESQUE JV, KOPER PC. Acute and late complications after radiotherapy for prostate cancer cancer: results of a multicenter randomized trial comparing 68 Gy to 78 Gy. *Int J Radiat Oncol Biol Phys* 2005; 61: 1019-1034.
- 5) FIORICA F, BERRETTA M, COLOSIMO C, BERRETTA S, RISTAGNO M, PALMUCCI S, LIESHI A, URSINO S, FISICHELLA R, SPARTÀ D, STEFANELLI A, CAPPELLANI A, TIRELLI U, CARTEI F. Safety and efficacy of radiotherapy treatment in elderly patients with localized prostate cancer: a retrospective analysis. *Arch Gerontol Geriatr* 2010; 51: 277-282.

G. Cartei

International Academy of Environmental Sciences, Venice, Italy