Biochemical recurrence of prostate cancer after radical prostatectomy

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Introduction:

Prostate cancer is the second cancer in frequency of occurrence in developed countries in men older than 50 years. In Europe, as the cause of death in men, prostate cancer is the second right after lung cancer. Annually from the disease, which is the second death in men in Macedonia, affects about 70 new patients, and even 90% of them are detected at a late stage when complete cure of the patient is almost impossible. In R.Macedonia annually only 20 patients are with early diagnosed prostate cancer. One of the ways to cancer recurrence after radical prostate initial treatment (RT or RP) is biochemical relapse.

Men who suffer biochemical recurrence following RP can be divided into three groups: 1. Persistent disease; 2.Recurrent disease and 3.The case with persistent but low PSA levels attributed to slow PSA metabolism or residual binign tissue.

The question is : What to do and when to act in patients with biochemical recurrence after RP for clinically and pathologically apparent metastatic disease?

Case study:

This is a case study about 61 years old man with good performance status (ECOG PS=0) . In 2007 he came at Clinic of oncology and radiotherapy with diagnosis: St. post prostatectomiam radicalis pp Adenocarcinoma prostatea. pTNM = T2c N1 Mx (Stad. IV) ; Gleason score = 3+4; without any of the following adverse features: positive margins, seminal vesicle invasion or extracapsular extension. During the surgery metastatic lymph nodes were found in the tissue around a.illiaca interna in both sides. Bone scan was without evidence of metastatic disease, only degenerative changes and post op PSA=0,267 ng/mL.

Initial treatment: Immediate ADT with LHRH agonist and antiandrogen (amp. Triptorelin i.m. + Tabl. Bicalutamide 1x1). After 13 months ADT was stopped. Follow up: every 3 months PSA evaluation : 2/2009: 0,092ng/mL; 7/2009: 0,404 ng/ml; 10/2009: 1,21 ng/ml; 1/2010:3,83 ng/ml; 3/2010:6,48 ng/ml; Bone scan: degenerative changes; blood biochemical findings: normal; DRE= normal; US of abdomen: normal.

Biochemical recurrence after 1 year of disscountination of initial ADT.

Treatment of reccurrence:The choice was to be continued with ADT with LHRH agonist and antiandrogen (amp.Gosarelin s.c monthly + Tabl.Bicalutamide 1x1) 3/2010. PSA was evaluated every 3 months during therapy: 6/2010: 0,16 ng/ml;9/2010: 0,05 ng/ml; 2/2011: 0,02 ng/ml; 4/2011: 0,02 ng/ml; Bone scan: degenerative changes, blood biochemical findings: normal.

After 16 months ADT was stopped but second biochemical recurrence after 12 months that ADT was stopped. (1/ 2012: 5,866 ng/ml), blood biochemical findings: normal.

Treatment of second recurrence:The choice was to be continued with ADT with LHRH agonist and antiandrogen (amp.Gosarelin s.c monthly + Tabl.Bicalutamide 1x1) 1/2012. PSA was evaluated every 3 months during therapy:5/2012: 1,837 ng/ml;12/ 2012: 3,301 ng/ml. The patient was sent for CT of abdomen and pelvis: normal findings. Bone scan: normal finding. PSA: 3/2013: 5,058 ng/ml;6/2013: 3,02 ng/ml; 9/2013: 0,871 ng/ml.

Conclusion:

Several retrospective studies have assessed the prognostic value of various combination of pretreatment PSA levels, PSA doubling time, Gleason scores, and the status of surgical margins for biochemical recurrence after radical prostatectomy. A large retrospective review of 501 patients who received salvaged radiotherapy for detectable and increasing PSA levels after radical prostatectomy showed that the prediction of progression were Gleason score 8-10, pretreatment PSA levels > 2ng/ml, PSA doubling time 10 months or less, negative surgical margins. However, separation of men of those who likely to have local recurrence versus systemic disease and hence response to postoperative radiotherapy , has proven not possible for individual patients using clinical and pathological findings. The question is still open : adjuvant radiotherapy, salvage radiotherapy or ADT. We still need studies for the best treatment options for these patients : will they be overtreated or not?

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