鹿児島女子短期大学紀要
第47号（2012）23～26頁

The Prostate Specific Antigen of Myself

Takashi HAYATA

For this decade, I'm deeply put into the prostate specific antigen (PSA) world, whatever it might be happy or not. The reason that I decided to write down this article is that PSA got downwards abruptly from over 60 to 4 when radiation therapy was over on May 9th, 2011. Until now on I have been confused with or embarrassed by the PSA values suffering as from heart break of myself. This is a story of a doctor as a sole cancer patient struggling with PSA and lastly gave thanks to it.

Present illness

My son (K. univ. hospital) kindly made a graphical data of PSA (Fig. 1) from the bottom line to the up until recent rising of it. It recalls me the clinical course along this super feature. After the operation[1) 2)] PSA had rather good wave because of the hormonal therapies per os which include anti-testosterone and moreover the estrogen with methotrexate (MTX) or anti-cancer drug. Although these hormones were used promptly, PSA showed steady rise revealing sometimes within 2 weeks' doubling time that showed somewhere around the body distinct cancer growth existed. Bone scintigraphy was used with no evidence of newly growing tumor and nor significant ALP (bone ALP also available) with a little discomfort around my buttock this half a year so to speak first arousal provoked last Nov. 2010 I remember. On March 9 PAS showed 45.1 which was almost the value when you saw an urologist for the first time. Two days later big earthquake that

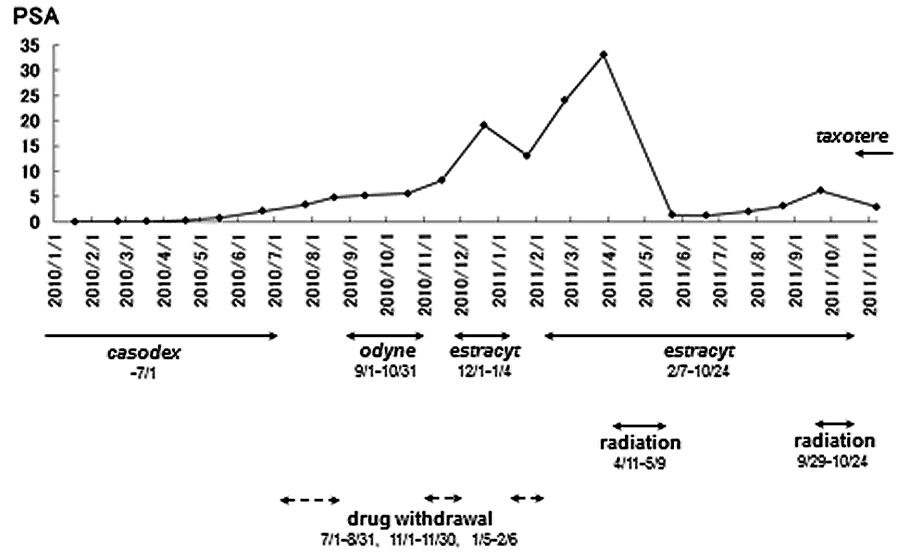

Fig.1 PSA and various therapies (courtesy of Dr. HAYATA M.)

swallowed eastern Japan coast through big tsunami caused a tremendous disaster when it happened to be my 64th birthday. On march 15 at the graduation day of my college discomfort increased to the pain of left leg around pelvis with some difficulties of walking so I decided to go to that Dr. On the next scheduled day, April 6 PSA revealed 61.54 and in simple x-ray film showed something in pelvis or KUB (kidney ureter bladder).

I saw a shadow of possible metastasis from the prostate and osteolytic feature that he said. Subjective symptom was that I felt tender hard tumor of almost hen egg size. Dr. N saw and touched me on the buttock, saying that this is not an usual case of prostate cancer which provoked on such a place in pelvis as ischia. He wrote a letter to ask radiation therapy to Dr. U. at K. municipal hospital where I got a first irradiation therapy one and a half years ago. Next day I visited him and had CT scanning for determining the tumor size of 7 cm in greatest diameter and radiation site. Later I was told by him that PSA was 40 at this hospital. I thought this PSA value would be its fluctuation or might be due to the estracyt (estrogen with MTX, described above).

On April 11 radiation therapy started with plan of 15 trials to the doses of 30 gray. On the same day bone scintigraphy was performed, not showing any other newly growth of metastasis. Irradiation went on smooth and PSA showed 28 in 10 days, but at this time I felt a blood clot in urethra at the penile apex flushing out blood which came as you splash at the first void. I was so astonished to see these because this is my first opportunity. Urologist Dr. N prescribed adona and transamin for 1 week. This episode was only once and never happened again without skin erosion in left inguinal region that was repaired by the newly formed epidermis within a few weeks. Urinalysis showed no microscopic bleeding thereafter.

At May 9 when the radiation was over, PSA got down to 4.08 which is near to the normal range of <4.0 which had more down growth to 1.337 at K. univ. hospital 2 weeks later and moreover to the value of 1.243 in one month.

But somewhat around the month of July, I had noticed another discomfort of the right hip joint when I walked and PAS grew in its values 1 per 2 weeks, showing 6.12 in September accompanying 397unit of ALP at K. univ. hospital, suggesting bone metastasis in somewhere of coxa. I visited K. municipal hospital and consulted to Dr.U., radiologist who gave me radiation therapy 2 times beforehand. On Sept 26 I had a bone scintigrapy that disclosed newly formed metastasis in right coxa. Two days later CT showed right pubic bone degeneration probably due to the prostatic origin, made him decide to plan 2.5 a day, 5 times a week to the total doses of 40 Gy through 16 times beginning at Sept 29 and ending in 21 of October.

He intended to survey the thoracic vertebrae to explore the necessity of further radiation that had been indicated until almost 3 years before without any treatment and by chance found pulmonary metastases by simple CT of thorax, although there is no spinal invasion with vertebral newly bone formation which suggested vertebral invasion. So the situation changed and I thought next step would be chemotherapy using paclitaxel or immunotherapy. PAS showed 11.8, which was 2 times of one month before, although right pubic legion had been radiated through 7 times of 2.5 Gy.

Chemotherapy by paclitaxel was planned. Oct. 24th was the first day of its trial. On that day in the afternoon, it was begun, starting with 0.9% sodium chloride injection, at the speed of 270ml/hour. During and after 3 hours procedure I felt nothing particular such as nausea, discomfort and so forth. These will be done once a month through almost the year, glancing at PSA level. In 2 weeks it showed 2.926 at K. univ. hospital with falling down of leukocyte number to 2800 which was the first blood count showing paclitaxel side effect. At night of the same day, I realized my hair coming down a little which was also a drug side effect.

Tiny discussion

PSA is an abbreviation of prostate specific antigen which is supposed to be the product of prostate gland. My son as a control showed 0.9 this year that I recommended him to seek his own PSA level because of his consanguinity that his father is a prostate cancer patient. PSA is a significant prostate cancer marker, that is, this value would not be influenced by another situation such as kidney function level or et cetera.

PSA is famous also in Japan because comedian who traveled all over the country on earth and on his way back he was diagnosed prostate cancer and treated at US early this year (2011). He showed a commercial message on TV that PSA is important for the prostate cancer patient.

As shown above usually you have a low level of PSA in man. But in abnormal state of this gland whatsoever it may benign or malignant, it rises. So when you see the elevation of PSA, it is not enough to suspect cancer by this number although PSA is important in early detection of prostate cancer and follow up of patient who got surgery, hormonal one, radiation and chemotherapy and so on.

What would you do or have it done when PSA values rise? This is such a big problem and hazardous for prostate cancer patients that for most clinicians it is convenient to follow up them as a super brilliant tumor marker. In other words patient situation is so different from the clinician who could not estimate his patient thought or behavior. For clinician PSA rise means what is the next step of treatment only but for his patient it is far more anxious as why it rose and therapy until now should be good enough or too small. Some Drs. will say that PSA itself fluctuates often and frequent examining this value is not useful but from the standpoint of patients it is comfort or satisfied and erase the concern.

Here is a quote[3] “For men who have had other initial therapy, such as radiation therapy with or without hormonal therapy their PSA level has risen by 2 ng/ml or more after having no detectable PSA or a very low PSA level, according to the national comprehensive cancer network (NCCN) clinical practice guidelines in oncology for prostate cancer, additional treatment may be indicated.” Usually in case of prostate cancer screening by PSA in Japan over 4ng/ml value of it suggests the malignancy. Former standard of NCCN seems to be stricter standard of PSA because whatever you got an any therapy you need more intensive or precise look over the recurrence of cancer.

Moreover PSA ability is so limited that it will disclose the very low grade or slow growing tumor which seldom threatens your life. It is also true that high grade or fast growing tumor escapes from PSA’s catch up. You can call these phenomena as PSA velocity. So diagnosing by PSA in prostate cancer which affluences

patient's or family's anxiety might be permitted for purpose that cancer should not be overlooked.

In addition, when the first trial of paclitaxel was done, I felt that everything was over and nothing of anxiety or concern was there, because this drug had a good news on cancer treatment without any bad effect on patient.

References

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（2011年12月 6 日　受理）