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UROLOGY - LETTER TO THE EDITOR

Multiparametric prostatic MRI should not be the only method to decide re-biopsy in the patients who had a negative prostatic biopsy

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Dear Editor,

Although abnormal digital rectal examination of the prostate and/or high serum PSA level is the indication for the prostatic biopsy, free/total PSA, PSA velocity, PSAD, and age-adjusted PSA level are the other indications for the prostate biopsy in addition to high level of total serum PSA [1–3]. Free/total PSA is the one which is commonly used among these parameters. Although there is no a clear cutoff value for the differentiation between BPH and prostate cancer, free/total PSA < 0.10 is considered for the suspicion of prostate cancer [4]. To confirm the diagnosis of prostate cancer, standard prostate biopsy is performed under the guidance of transrectal ultrasound of the prostate using automatic biopty gun. The number of the cores is due to the prostate volume. Cores are randomly taken from both side of the prostate if there is no suspicious area in the ultrasound. The problem is when to make the decision for re-biopsy in the patients with persistant high serum PSA level after a negative standard prostatic biopsy. In recent years, fusion biopsy that MRI matched with appearence of transrectal prostate ultrasound has been defined [5].

I present a male patient who was 56 years of age admitted to our outpatient clinic for high serum PSA level. t-PSA and f-PSA level were 5.5 ng/dl and 0.445 ng/dl, respectively. He had a standard 10cores prostate biopsy in May 2018. There was no tumor in histopathological examination. The same slides were re-examined by another pathologist and the result was the same. The patient was followed by regular measurements of serum PSA in 3-month periods. Multi scans (T1 and T2 weighted), diffusion weighted, and dynamic gadolinium contrast-enhnaced imaging were performed using a 3T scanner (Siemens 3T) in October 2018. Evaluation of MRI results was performed by a well-experienced radiologist. There was PIRADS-2 lesion in the prostate. Serum PSA levels were 4.2 in August 2018 and 4.9 ng/dl in December 2018. Free/total PSA rates were 0.10 in August 2018 and 0.16 in December 2018. Serum PSA level and free/total PSA rate which were measured in May 2019 were 5.2 ng/dl and 0.09, respectively. Due to very low free/total PSA rate, a new multiparametric prostatic MRI was performed in May 2019. The result was the same. Digital rectal examination was normal. A new standard prostatic biopsy was recommended to the patient because of the the low free/total PSA rate even if multiparametric prostatic MRI results showed no suspicion of the prostate cancer. After obtaining the informed consent, the patient underwent a second standard 10-core prostatic biopsy. In histopathological examination, prostate cancer (Gleason score 4 + 4) was found in the whole cores. We did not use any additional biomarker to make re-biopsy decision.

European Association of Urology also recommends to perform a multiparametric prostatic MRI before re-biopsy in the patients with negative prior prostate biopsy [6]. However, even if the results of the multiparametric prostatic MRI show no suspicion of prostatic adenocarcinoma as in our cases, the patient may have a prostatic adenocarcinoma. In our case, free/total PSA rate was very low and digital rectal examination was normal. Multiparametric prostatic MRI should not be the only method to decide re-biopsy in the patients who had a negative prostatic biopsy. PSA parameters, especially free/total PSA rate, should also be considered for re-biopsy in addition to total high PSA level.

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Compliance with ethical standards

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