



Letter to the Editor

Reply to Ola Bratt's Letter to the Editor re: Jean-Louis Campos-Fernandes, Laurence Bastien, Nathalie Nicolaiew, et al. Prostate Cancer Detection Rate in Patients with Repeated Extended 21-Sample Needle Biopsy. *Eur Urol* 2009;55:600–9

In our article in the March issue of the *European Urology*, we reported the prostate cancer detection rates of 18%, 17%, and 14% in patients who underwent a 21-core biopsy protocol for the second, third, and fourth times, respectively [1].

The exact number of cores of prostate biopsy protocol is still under debate, for the first set of biopsies and for the subsequent ones.

In his letter to the editor, Dr. Bratt emphasizes that our detection rates were biased by a selection of high-risk patients for this second set of biopsies [2]. Of 953 men, only 231 men were subjected to a second set of biopsies or more. We agree with this comment: Performing a first 21-core biopsy scheme decreases the risk of undetected aggressive cancer and helps to better identify men who are candidates for a second set of biopsies. Our high detection rates can bear witness to a lack of cancer detection with the first biopsies or of an interesting diagnostic yield of extensive sampling in the second set of biopsies. We think that the second proposition is correct. We demonstrated that the use of an extended biopsy protocol at each pathologic assessment of the prostate provided a diagnostic yield compared with a 12-core biopsy scheme [3]. The other meaning of this sentence could be that patients with negative 21-core biopsies were at less risk of undetected aggressive cancer than those with negative results in a 12-core biopsy scheme.

We recently compared patients who had undergone a second set of biopsies, according to the biopsy scheme of the first set of biopsies (12–15 cores vs 21 cores) [4]. The prostate cancer detection rate was significantly higher in patients who had undergone an initial 12- or 15-core biopsy scheme (37%) compared with patients who had undergone a first 21-core biopsy protocol (17%, $p < 0.001$). Moreover, 38% of cancers detected in the first group were graded Gleason ≥ 7 compared with 19.3% in the second group ($p = 0.018$). Mean percent of core invasion was 25.3% in the first group compared with 15.9% in the second group ($p = 0.004$). These results argued that the substantial risk of

aggressive prostate cancer was lower in patients who had undergone an extended biopsy protocol. We agree with Dr. Bratt's comments: Urologists should not perform repeat biopsy in men with a low risk of aggressive prostate cancer. Thus, we think that a full evaluation of all prostate zones using an extended protocol (21 cores in our department) decreases the risk of undetected cancer with adverse prognosis.

Diagnosing prostate cancer is the primary aim of the prostate sampling. An accurate assessment of the aggressiveness and prognosis of the detected cancer is also mandatory.

It has been demonstrated that a higher sampling density (21 cores vs 12–14 cores) increased Gleason concordance and prediction of pT3 and surgical margin status between biopsy and prostatectomy and decreased the risk of significant upgrading, thanks to more accurate pathologic biopsy evaluation [5,6]. By reviewing the pathologic parameters of the study patients for whom a radical prostatectomy was performed, 28.4% of cancers were pT3–4, 8.2% were graded Gleason ≥ 8 , and the biochemical recurrence-free survival was 82.8% at 5 yr. These rates were lower than those observed for the cancers diagnosed on initial biopsy but remained clinically relevant.

Conversely, Djavan and coworkers (cited as reference 2 by Dr. Bratt [2]), who had used an 8-core biopsy protocol for the first and the second set of biopsies, reported that pathologic and biochemical features of cancer detected on biopsies 1 and 2 were similar, suggesting that at least 16 cores were necessary to correctly sample the prostate [7]. Interestingly, the presence of positive cores in the nine additional cores sampled in our biopsy protocol provided an additional prognostic value in terms of non-organ-confined disease and biochemical recurrence-free survival. In a multivariate analysis taking account into Gleason score, prostate-specific antigen (PSA) level, percentage of core invasion, tumor length, and number of positive cores, the presence of positive cores in the additional cores was the second most important predictor of PSA failure after prostatectomy, just after the Gleason score.

For all of these reasons, we believe that an extended biopsy scheme must be the gold standard of prostate needle biopsy protocol, especially at the first procedure because it leads to a lower risk of prostate cancer on repeated biopsies with a risk of less aggressive cancers.

Conflicts of interest: The authors have nothing to disclose.

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