

Clinical Implications of Prostate Cancer

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91.1 Diagnosis Staging

Transurethral ultrasound (TRUS)-guided biopsies are the best method to diagnose prostatic carcinoma, and a minimum of 8–12 biopsy cores are recommended depending on the size of the gland. TRUS offers information for local staging (T staging) as well, but due to its low sensitivity, MRI images can offer valuable information. The evaluation of pelvic lymph nodes (N staging) is done with CT scans, but small metastases cannot be identified with preoperative imaging technology, and therefore lymph node surgical dissection is still needed in cases where the Gleason score is >6 or when the PSA value is >20 ng/ml. Skeletal metastases (M staging) are best evaluated with bone scans. In ambiguous cases where dilemmas arise, C-choline-, F-fluoride-PET/CT, and whole body MRI have been offered as an alternative option, but these modalities should not be used routinely in everyday practice [1, 2].

lesion is present. Metastatic sites can be detected with CT or MRI scans and with bone scans. These modalities should not be used routinely in patients with stable low PSA values and will offer information when symptoms become present or when the PSA value exceeds the level of 20 ng/ml. For the identification of local recurrence after radical prostatectomy, endorectal MRI has been used, but it is not recommended in every case. PET/CT has been examined in patients with biochemical relapse after definitive treatment (radical prostatectomy and local radiation), and it has been shown that metastases can be identified. The capacity of this modality to identify metastatic sites is influenced by the PSA level, PSA velocity, and PSA doubling time. With PSA values <1 ng/ml, the assistance of PET/CT is questioned [1, 2].

91.2 Follow-Up Strategies

TRUS and biopsy have been used to detect local recurrence, but it is recommended only if it will change the treatment decision and if a palpable

References

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2. Pinto F, Totaro A, Palermo G et al (2012) Imaging in prostate cancer staging: present role and future perspectives. *Urol Int* 88(2):125–136

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