Intraductal carcinoma of prostate (Recommended)

Intraductal carcinoma of the prostate (IDC-P) is found in approximately 17% of radical prostatectomy specimens and is usually associated with invasive prostate cancer.[1] However, occasionally isolated IDC-P is found without invasive carcinoma; this latter situation is very rare and beyond the scope of this dataset.

IDC-P has been well characterised at the histological and molecular levels over the past decade and its clinical significance is now also better understood.[2] The diagnosis of IDC-P is based on morphology and the key criteria include: 1) large calibre glands that are more than twice the diameter of normal non-neoplastic peripheral glands; 2) preserved (at least focally) basal cells identified on H&E staining (or with basal cell markers, such as p63, keratin 34βE12 and keratin 5/6, however, the use of immunohistochemistry to identify basal cells is optional, rather than mandatory, for the diagnosis of IDC-P); 3) significant nuclear atypia including enlargement and anisonucleosis; and 4) comedonecrosis, which is often but not always present.[3,4] It is important to distinguish IDC-P from high grade prostatic intraepithelial neoplasia (HGPIN): compared to IDC-P, HGPIN has less architectural and cytological atypia, and cribriform HGPIN is rare.

When present in combination with invasive carcinoma in radical prostatectomy specimens, IDC-P is strongly associated with high volume, high grade and stage (extraprostatic extension (EPE) or seminal vesicle invasion (SVI) positive)) carcinoma.[5] Moreover the presence of IDC-P is independently associated with biochemical recurrence, regional lymph node metastasis and cancer specific survival.[1,6,7] Hence, in radical prostatectomy specimens, the presence of IDC-P in association with invasive carcinoma should be recorded.

There was a strong consensus (82%) at the recent International Society of Urological Pathology (ISUP) consensus meeting (Chicago 2014) that IDC-P should not be assigned an ISUP or Gleason grade.[8] It is also unnecessary to measure the extent of the IDC-P.

References

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