

Intratubular lesions (Required and Recommended)

Reason/Evidentiary Support

The term germ cell neoplasia in situ (GCNIS) has replaced the previous terms, carcinoma in situ (CIS), intratubular germ cell neoplasia, unclassified (IGCNU) and testicular intraepithelial neoplasia (TIN). None of the previous terms was entirely correct and led to much confusion in the literature. GCNIS is not a 'carcinoma' nor is it 'intra-epithelial', and the term IGCNU, was confusing due to the use of the term 'unclassified' which many replaced by 'undifferentiated'.

In fact, the true in situ area for the development of germ cell tumours is in a specific intratubular location, the 'spermatogonial niche' between the basement membrane and the tight junctions between adjacent Sertoli cells.

GCNIS is the precursor lesion for the most common variants of invasive germ cell tumours. Although not a prognostic factor, it should be a core item, as its absence may raise the suspicion of a non-GCNIS associated tumour, which have differing prognosis and treatments, as well as the possibility that the tumour is a non-germ cell tumour mimic of a germ cell tumour (notably some Sertoli cell tumours).

'Pagetoid' invasion of the rete testis occurs when GCNIS-like cells infiltrate the epithelial cells of the rete but do not invade the rete stroma. The significance of pagetoid type rete invasion is unknown but is generally accepted that these represent infiltration of GCNIS rather than invasive seminoma.