Tumour deposits (Core)

Under the Union for International Cancer Control (UICC)/American Joint Committee on Cancer (AJCC) TNM 8th editions definition, tumour deposits (satellites) are discrete macroscopic or microscopic nodules of cancer in the pericolorectal adipose tissue's lymph drainage area of a primary carcinoma that are discontinuous from the primary and without histological evidence of residual lymph node or identifiable vascular or neural structures.[1,2] The definition does not specify any minimum size of deposit or minimum distance of separation from the primary tumour. If a vessel wall is identifiable on haematoxylin and eosin (H&E), elastic or other stains, it should be classified as venous invasion or lymphatic invasion. Similarly, if neural structures are identifiable, the lesion should be classified as perineural invasion Identification of venous, lymphatic or perineural invasion does not change the T category. The presence of tumour deposits, as defined, also does not change the primary tumour T category, but changes the node status (N) to pN1c if all regional lymph nodes are negative on pathological examination. Therefore, pN1c is only applied in the setting of node-negative disease and, if any nodes contain metastatic tumour, the number of tumour deposits is not added to the involved node count in determining final pN category. However, as there is evidence from meta-analysis of the adverse prognostic significance of tumour deposits, albeit based on a previous definition, the presence and number of identified tumour deposits should be recorded regardless of pN status.[3]

A mesenteric focus of tumour, without evidence of origin, which is discontinuous from the primary tumour, located within its lymphatic drainage area and predominantly subserosal in location but which penetrates the serosal surface of the mesentery, should be classified as a tumour deposit rather than distant metastatic (pM1c) disease. This finding does not influence the pT category, which should be based on extent of invasion of the primary tumour only, but a comment may be added that, given serosal involvement by the tumour deposit, behaviour may equate to pT4a disease. Guidance on this interpretation is offered without good evidence. pM1c disease should be reserved for tumour which appears to have arisen from metastatic spread via the peritoneal cavity.

Assessment of discontinuous tumour foci is difficult following administration of neoadjuvant therapy and evident tumour regression. This setting requires consideration of tissue separating the primary tumour site from the discontinuous tumour foci. Designation of such foci as tumour deposits should require the presence of intervening normal tissue, not just fibrosis.

References

1 Brierley JD, Gospodarowicz MK and Wittekind C (eds) (2016). *UICC TNM Classification of Malignant Tumours, 8th Edition*, Wiley-Blackwell.

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