

Cancer Diagnostics Conference & Expo

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Breast cancer heterogeneity

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Breast cancer is a heterogeneous disease with individual cases varying in morphology, clinical and radiological manifestations, prognosis, and therapy response. Heterogeneity is frequently seen within the same tumor and in general refers to co-existence of more than one tumor cell subpopulations with regard to histological tumor type and grade, protein expression or genetic characteristics. Foci deviating from one another with regard to their estrogen and progesterone receptor status are seen in approximately 10% of multifocal carcinomas similar to differences in HER2 over-expression. Variations in Ki67 proliferation index are also frequent. Heterogeneity may potentially lead to discordant results dependent on which part of the tumor is embedded and examined. This problem is even more obvious in core biopsy – surgical specimen correlation and in relation of primary tumors and metastatic foci. More importantly, the different subpopulations may influence the assessment of the tumors' molecular phenotype and potentially may lead to under-treatment of the patients.

Biography

Tibor Tot, associate professor of pathology at the University of Uppsala and head of Laboratory Medicine Dalarna, Sweden, is faculty member of the breast pathology arm of the European School of Pathology (ESP), and scientific director in the European School of Oncology Certificate of Competence in Breast Cancer program. Publications: 6 textbooks, 20 book chapters, and 80 journal articles mostly on radiological – pathological correlation of breast diseases. He is repeatedly invited speaker on international congresses, member of the European Working Group for Breast Cancer Screening Pathology and past chair of the Working Group for Breast Pathology of the ESP.

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