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170

PROGNOSTIC MARKERS IN MALIGNANT DISEASES. JP. Chapelle, J. Duvivier, J. Gielen. Deparment of Clinical Chemistry, University Hospital, CHU B35, B-4000 Liege, Belgium.

Malignancy of cancer is due to invasion eventually leading to metastasis. Genetic changes causing an imbalance of growth regulation lead to uncontrolled proliferation necessary for both primary tumor and metastasis expansion. In addition, invasion and metastasis can be facilitated by proteins which stimulate tumor cell attachment to host cellular or extracellular matrix determinants, tumor cell proteolysis of host barriers such as the basement membrane, tumor cell locomotion, and tumor cell colony formation in the target organ for metastasis.

Biological markers that predict prognosis once a cancer has occured are of great importance because they may influence major therapeutic recommendations. Steroid hormone receptors in breast cancer are the classical representative of this group of parameters. Today, new markers are proposed as indicators of prognosis; among these are amplication of the protooncogene HER-2/*neu* (c-erbB-2), overexpression of epidermal growth factor receptor, mutation of the p53 tumor-suppressor gene, expression of cathepsin D, increased levels of urokinase type plasminogen activator or of type 1 plasminogen activator inhibitor, increased thymidine kinase actitivity,... Some of these factors look very promising but prospective clinical trials are needed to determine whether they are indeed independent factors of some more conventional criteria.