Epithelial-mesenchymal transition (EMT), a normal developmental process, is known to play a crucial role in tumor progression. Molecules involved in this process, such as the E-cadherin repressor Snail, facilitate migration and invasion of carcinoma cells. A growing number of studies addressing the expression of Snail in clinical samples have been reported and are discussed in this review. A total of 2,112 cases from 9 different tumor types were evaluated. So far, a clear picture has emerged only in some cancer types analyzed with regard to overexpression of Snail and clinical-pathological parameters. Currently, it seems that Snail may play a role in hormone-dependent carcinomas but may be of minor importance in gastrointestinal cancers for tumor dedifferentiation and the maintenance of the invasive phenotype. It should be kept in mind, however, that the threshold for Snail activity does not have to be the same in every tumor type analyzed. The recent introduction of well-characterized novel monoclonal antibodies reacting with the short-lived nuclear Snail protein may help to establish a potential clinical usefulness for this master molecule of EMT, at least for certain types of cancer.

Stichworte:
Cadherin; Adhesion; Transcription factor; Monoclonal antibody; Formalin-fixed tissues

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