10.5 Predisposing factors of cancer cells

Organisms can often be found in cancer patients with metastases.

Some tumor types prefer certain sites of secondary growths (e.g. breast carcinoma and carcinoma of the prostate, kidney metastasize to bone, melanoma-skin cancer metastasizes to liver). The mechanical theory of metastasis explains the spread of cancer cells to certain organs to such factors as metastatic cell size, pressure, size of vessels, direction of bloodstream or lymphatic drainage etc. The selective affinity theory of metastasis correlates higher affinity of metastatic cells to certain environment with immunologic characteristics, local growth factors, specific glycoprotein surface components of favorable tissue cells etc.

10.6 Characteristics of benign tumors

Benign tumor is classified on the basis of well differentiated cells, which do not invade and cannot set up a new growths – metastases. Benign tumors are usually separated from the surrounding host tissue by a capsule of connective tissue. Benign tumor growth is slow. Necrosis and ulcerations of these tumors are unusual. However, benign tumor can represent sometimes extremely serious problem (if it obstructs a bronchus, vessel, tract, if it interferes with oxygenation, nutrition or elimination, if it has functional endocrinial activity etc.)