

What is cancer?

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Cell growth is a strictly controlled process, which is regulated by growth factors. Impeded regulation of growth factors results in uncontrolled growth signal transduction and normal cell transformation into cancer cells. Cancer cells continue to grow uncontrollably [1].

As the tumor grows, its center gets less and less nutrition and oxygen, so the tumor starts building its own vascular system in the process of angiogenesis [1]. Angiogenesis is followed by processes of invasion and metastasis. Proteolytic enzymes and growth factors have a prominent role in tumor invasion and angiogenesis. While proteolytic enzymes degrade the extracellular matrix growth factors stimulate the growth of endothelial and cancer cells [2]. In the process of metastasis, cancer cells are separated from the tumor and transferred to other organs by blood vessels, with the help of various factors produced by cancer and stromal cells [3].

References

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