

## 7<sup>th</sup> Global Summit on **Cancer Therapy**

**October 05-07, 2015 Dubai, UAE**

### **Cavitary type of angiogenesis in gastric and breast cancer: Clinical and morphological aspects**

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We offer to consider a new type of angiogenesis consisting in the formation of cavitary structure (CS) in tumor stroma, being then lined by the endothelium and merged into the vessels of organ. The formation of CS may be associated with the abruption of tumor cells from their underlying foundation (type-1) and with the processes of formation and lysis of tumor stroma (type-2). The main morphological sign of “cavitary” angiogenesis of type-1 is the presence of the CS with partial endothelial lining, of type-2: A characteristic cellular structure of peritumoral stroma. To evaluate the “cavitary” angiogenesis for clinical significance, we examined tumor tissue from 73 patients with gastric cancer (GC) and 59 patients with breast cancer (BC). The samples were stained with H & E and immuno histochemically with antibodies to CD34. It was established that the presence of multiple CS type-1 was more often in T3-4 ( $p=0.008$ ) and in N2 ( $p=0.006$ ) stages of GC and was associated with a decrease of overall ( $p=0.001$ ) and relapse-free survival ( $p<0.001$ ). The presence of CS type-2 was associated with the diffuse type of GC only ( $p=0.07$ ). In BC the presence of the CS type-1 was associated with a typical dilated vessels in the intra-tumoral stroma ( $p<0.001$ ). These vessels were characterized by chaotic arrangement of endothelial cells, were more often observed by negative estrogen receptor ( $p=0.008$ ) and were associated with the presence of tumor emboli in vessels ( $p=0.02$ ). CS type-2 were associated with positive Her2/new status ( $p=0.008$ ). We believe that further studies of “cavitary” angiogenesis are promising.

#### **Biography**

Marina Senchukova has completed her PhD from Orenburg State Medical Institute and Postdoctoral studies from Orenburg State Medical University. She is an Associate Professor of the Oncology Department of the Orenburg State Medical University. She has published more than 20 papers in reputed international and Russian scientific journals and holds five patents for invention of Russian Federation.

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