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Distribution of Metastases in the Organs of Mice after Orthotopic Injection of CT26 Colorectal Cancer Cells

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One of the reasons for the high mortality rate from colorectal cancer is the formation of metastases, and effective animal models of cancer are needed to analyze the mechanism of their development. In order to form such a model of metastasis, we carried out orthotopic inoculation of CT26 mouse colorectal cancer cells containing the luciferase gene into the submucosal region of the animal's caecum. Determination of the presence of metastases in the organs of mice was carried out on the basis of the analysis of the luciferase gene expression using real-time polymerase chain reaction. It has been established that after orthotopic injection of CT26 mouse colorectal cancer cells in experimental animals, metastases are found not only in the liver, but also in the lungs and spleen. Such data were obtained for the first time and allow us to consider the protocol we used to model the process of colorectal cancer metastasis.

Keywords: mouse, colorectal cancer, metastases, orthotopic transplantation, caecum