

Antimetastatic effect of Celecoxib/PLGA in a TA3-MTX-R murine breast adenocarcinoma model [Efecto antimetastásico de Celecoxib/PLGA en un modelo murino de adenocarcinoma mamario TA3-MTX-R]

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Metastasis is the propagation process of a cancerous focus to an organ other than that in which it started; usually occurring through blood or lymphatic route. The most common sites of metastases are the organs most irrigated such as the brain, lungs, liver, bones and adrenal glands. The objective was to analyze the pattern of liver tumor metastasis TA3-MTX-R, after application of antiangiogenic Celecoxib microencapsulated in PLGA in mice and decreased metastatic to lobular level areas. An experimental model of tumor induced TA3-MTX-R cells was used, 18 mice divided into 3 groups of 6 animals, which were treated with two presentations Celecoxib intramuscular (Group 1, control was used -R; Group 1: TA3-MTX-R+Cx and Group 3: TA3-MTX-R+Cx/PLGA). The mice were sacrificed and processed histologically to be stained with H&E and Arteta trichrome. The study revealed that the liver shows a marked heterogeneity, and a pattern of perivascular metastasis and central and peripheral neovascularization. Furthermore, Celecoxib significantly reduced tumor invasion in the liver ($p < 0.0001$). The results are similar to partial descriptions made previously and are comparable to other tumor lines. It is believed that the route of administration of the drug is critical for the interpretation of the results. These are important for the discussion of other investigations in which Celecoxib is used as an antiangiogenic drug. © 2015, Universidad de la Frontera. All rights reserved.

Celecoxib

Liver

Metastasis

PLGA

TA3-MTX