

THE EFFECTS OF MELOXICAM ON THE GROWTH AND VIABILITY OF MOUSE MAMMARY TUMOUR CELL LINES EMT6 AND 4T1

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Abstract

The *in vitro* growth of mouse mammary tumour cell lines EMT6 (benign type) and 4T1 (malignant type) were evaluated following treatment with three different doses of meloxicam. The viability and growth of these cells following treatment were determined via cell proliferation and live-dead assays. Cell proliferation assay for these cells showed the absorbance of treated cells was significantly ($p < 0.05$) higher than the control. The live-dead assay showed that the viability of the treated cells was significantly ($p < 0.05$) lower than the control for EMT6 cells while there was no significant difference for the 4T1 cells, however the viability of the treated cells was lower than the control. This study provides preliminary evidence that meloxicam may inhibit growth and viability of mouse mammary tumour cell lines EMT6 and 4T1.

Keywords: mouse mammary tumour, EMT6 and 4T1 cell lines, meloxicam, cyclooxygenase-2 (COX-2) enzyme