

## Effect of *Citrus bergamia* juice in a xenograft model of neuroblastoma metastasis formation

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Neuroblastoma (NB) is the most common extracranial pediatric solid tumour with poor prognosis in children with disseminated stage of disease. A number of studies show that molecules largely distributed in commonly consumed fruits and vegetables may have anti-tumour activity. Recently, we have documented the antiproliferative effects of *Citrus bergamia* (bergamot) juice (BJ) *in vitro*, shedding light on the mechanism through which exerts its anti-tumoral activity [1]. In this study we evaluate the effect of BJ in a spontaneous NB metastatic SCID mouse model.

We show that BJ significantly affects SK-N-SH and LAN-1 cells proliferation *in vitro*, but fails to reduce primary tumour weight *in vivo*. Moreover, BJ reduced cell adhesiveness *in vitro* and the number of pulmonary metastases under consideration of number of tumour cells in the blood in mice inoculated with LAN-1 cells *in vivo*.

Our study demonstrates that the oral assumptions of BJ exerts slight anti-metastatic effects without any apparent sign of systemic toxicities, underlying its potential clinical interest and laying the basis for further investigation in cancer.

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[1] Delle Monache S, Sanità P, Trapasso E, Ursino MR, Dugo P, Russo M, Ferlazzo N, Calapai G, Angelucci A, Navarra M. Mechanisms Underlying the Anti-Tumoral Effects of Citrus bergamia Juice. PLoS One. 2013 Apr 16;8(4):e61484.