

Effect of chaetomelic acid on hematocrit, urine specific gravity and urinary volume values in a rat model of renal mass reduction

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Chaetomelic acid (CA) is a potent and highly specific inhibitor of ras farnesyl-protein transferase that seems to reduce both functional and histological damage in uninephrectomized rats subjected to renal ischaemia-reperfusion injury. The aim of this work was to evaluate the effect of chronic treatment with CA on hematocrit, urine specific gravity and urinary volume in a model of renal mass reduction. Male Wistar rats were subjected to 5/6 nephrectomy (RMR) or sham-operated (SO). One week after surgery, rats have been placed in four experimental groups: RMR rats without treatment (n=13); RMR rats treated with CA (n=13); SO rats without treatment (n=13); SO rats treated with CA (n=13). CA was intraperitoneally administered in a dose of 0.23 µg/kg three times a week for three months. We observed that animals from SO groups showed a higher hematocrit and urine specific gravity, and a lower urinary volume than animals from RMR groups ($p<0.05$). We did not observe differences between treated and no treated animals. These results suggest that three months of treatment with CA does not have a beneficial effect on hematocrit, urine specific gravity and urinary volume. However, these are preliminary data that warrant a larger scale study.