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Research article

## Nephroprotective effect of virgin coconut oil on rats induced by doxorubicin

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### Abstract

Anthracycline doxorubicin (Dox) is a very effective anti-neoplastic agent, which intercalates in DNA and inhibits topoisomerase II. DOX is one of the most common systemic treatments to improve some cancers in adults and children alike, including hematologists and solid tumors. Unfortunately, Dox's clinical efficacy is hampered by dose-related organotoxic (heart, liver, and kidney) potential, which can be life-threatening. Induction of kidney damage using doxorubicin with an accumulative dose of 15 mg/kg for 21 days, with 5 mg/kg once a week. Before the treatment male wistar rats (*Rattus norvegicus*) was adapted for 14 days then continued with doxorubicin induction and treatment of experimental animals for 21 days. Then on the last day, the treatment of male wistar rats (*Rattus norvegicus*) was fasted for 18 hours, performed surgery on the test animals. Wistar rats (*Rattus norvegicus*) male fasted for about 18 hours (not given food, but still given a drink). Male wistar rats (*Rattus norvegicus*) were anesthetized with ketamine at a dose of 70 mg/kg bb i.v. Male wistar rats (*Rattus norvegicus*) are then tethered to the board on all four limbs. Blood serum is used for the examination of total urea and creatinine. Based on the results and discussion that has been presented, this study concludes that the provision of 6 ml of virgin coconut oil (VCO) solution in male rats can reduce serum creatinine and urea levels respectively by  $1.35 \pm 0.02$  mg / dL;  $83.66 \pm 0.57$  mg / dL.

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