# Evaluation of the Potential Cardioprotective Activity of Some Saudi Plants against Doxorubicin Toxicity

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Doxorubicin (DOX) is an anthracycline antibiotic widely used as a chemotherapeutic agent in the treatment of several tumours. However, its cardiac toxicity limits its use at maximum therapeutic doses. Most studies implicated increased oxidative stress as the major determinant of DOX cardiotoxicity. The local Saudi flora is very rich in a variety of plants of quite known folkloric or traditional medicinal uses. *Tribulus macropterus* Boiss., *Olea europaea* L. subsp. *africana* (Mill.) P. S. Green, *Tamarix aphylla* (L.) H. Karst., *Cynomorium coccineum* L., *Cordia myxa* L., *Calligonum comosum* L' Hér, and *Withania somnifera* (L.) Dunal are Saudi plants known to have antioxidant activities. The aim of the current study was to explore the potential protective effects of methanolic extracts of these seven Saudi plants against DOX-induced cardiotoxicity in rats. Two plants showed promising cardioprotective potential in the order *Calligonum comosum* > *Cordia myxa*. The two plant extracts showed potent *in vitro* radical scavenging and antioxidant properties. They significantly protected against DOX-induced alterations in cardiac oxidative stress markers (GSH and MDA) and cardiac serum markers (CK-MB and LDH activities). Additionally, histopathological examination indicated a protection against DOX-induced cardiotoxicity. In conclusion, *C. comosum* and *C. myxa* exerted protective activity against DOX-induced cardiotoxicity, which is, at least partly, due to their antioxidant effect.

*Key words:* Saudi Plants, Doxorubicin, Cardioprotection