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# Antibacterial properties of *Curtisia dentata* leaves and some triterpenes/active principles isolated from them

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*Curtisia dentata* leaves were collected from Buffelskloof Private Nature Reserve in Mpumalanga province (South Africa) in April 2014. *C. dentata* is traditionally used in the treatment of sexually transmitted infections, diarrhoea, stomach complaints and as a purgative. Dried leaves were extracted separately with ethanol, chloroform, diethyl acetate and acetone. The extracts were evaluated for antibacterial activity using micro dilution assay against ATCC strains of *Escherichia coli, Pseudomonas aeruginosa, Mycobacterium smegmatis* and some clinical isolates *(Moraxella catarrhalis, Proteus mirabilis and Staphylococcus aureus)* obtained from HIV patients at the Nongoma District hospital in KwaZulu-Natal Province. Ethanol, chloroform and acetone extracts of *C. dentata* exhibited lowest minimum inhibitory concentration (MIC) value of 0.78 mg/ml against *P. aeruginosa,* while diethyl acetate extract exhibited an MIC value of 3.13 against *E. coli, M. catarrhalis, M. smegmatis* and *P. mirabilis.* Two isolated compounds *C. dentata* ethanol extracts- pentacyclic triterpenes, ursolic acid (UA) and betulinic acid (BA) exhibited antibacterial activity. The BA and UA exhibited antibacterial activity with MIC values of 0.06 and 0.08 mg/ml against *S. aureus* and *P. mirabilis* respectively. The observed biological activity of the extracts and the isolated compounds validates the use of *C. dentata* leaves in the treatment of various infectious diseases.

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