Two pterocarpans and an ester of ferulic acid from Erythrina melanacantha Harms

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Abstract:

Erythrina melanacantha is used in the management of various ailments in local communities in Meru yet there is little evidence on the antimicrobial properties of this plant against majority of bacteria and fungi. Two pterocarpans, erythracantha A (3) and erythracantha B (4) were isolated from the root and stem barks of Erythrina melanacantha together with an ester of ferulic acid (5). Their structures were elucidated on the basis of spectroscopic evidence. Also isolated from the root barks; n-hexane extract were the known compounds, stigmasta-5,22-dien-3-ol (1) and epilupeol (2) whose NMR data were comparable to those of authentic compounds as per the literature values. The antimicrobial activity of the crude extracts and pure compounds was performed on a variety of bacteria and fungi strains. The methanol extracts of both root and stem barks exhibited high inhibition zones. Pseudomonas eruginosa was affected more than the rest of the microbes.