Alkyl phenols, alkenylcyclohexenones and other phytochemical constituents from *Lannea rivae* (chiov) Sacleux (Anacardiaceae) and their bioactivity

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Six novel compounds, 3-nonadec-14'-(*Z*)-enyl phenol (**1a**); 4,5-dihydroxy-4,2'-epoxy-5-[16'-*Z*-18'-*E*-heneicosenyldiene]-cyclohex-2-enone (**2**), 2,4,5-trihydroxy-2-[16'-*Z*-heneicosenyl]-cyclohexanone (**3**), 4*S*,6*R*-dihydroxy-6-[12'-*Z*-heptadecenyl]-cyclohex-2-enone (**4a**); 4*S*,6*R*-dihydroxy-6-[14'-*Z*-nonadecenyl]-cyclohex-2-enone (**4b**); and 1,2,4-trihydroxy-4-[16'-*Z*-heneicosenyl]-cyclohexane (**5**) were isolated from *Lannea rivae* in addition to known cardanols, 3-heptadec-12'-*Z*-enyl phenol (**1b**), 3-pentadec-10'-*Z*-enyl phenol (**1c**) and 3-pentadecyl phenol (**1d**), sitosterol, sitosterol glucoside, taraxerone, taraxerol, *E*-lutein , myricetin , myricetin-3-*O*-α-rhamnopyranoside , myricetin-3-*O*-β-galactopyranoside, and (-)-epicatechin-3-*O*-gallate. The flavonoids demonstrated good antioxidant and antibacterial activity. Compounds **1a-d**, **4a-b** and **5** were all relatively non-cytotoxic, whilst **2** and **3** were cytotoxic against Chinese Hampster Ovarian cells. The compounds, **2** and **3** also showed good antiplasmodial activity. The mixture of dihydroxy cyclohex-2-enones **4a** and **4b** was less cytotoxic than **2** and **3** also showed promising antiplasmodial activity and is a good lead for an antiplasmodial drug.