In vitro antibacterial sensitivity test of *Staphylococcus aureus* to *Odontonema strictum* (*Acanthaceae*) crude extract and stigmasterol

(*Faculty of Science and Technology, Sophia University*) ○Lokadi Pierre Luhata and Toyonobu Usuki

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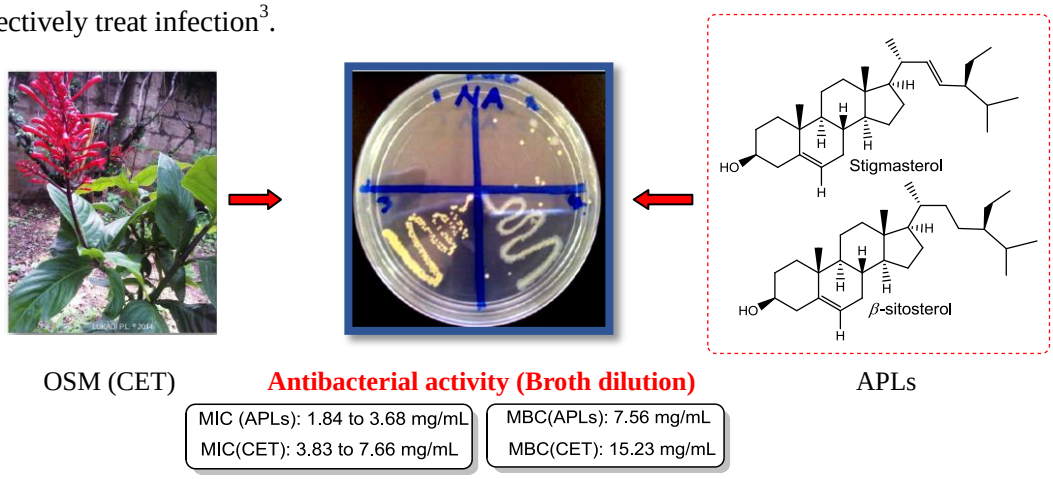
Aerial parts of the genus *Odontonema* are used in folk medicine to treat various illnesses.[1] These parts can also be used to speed up the healing process of open wounds that can become infected by aerobic or facultative pathogens such as *Staphylococcus aureus* (SA), *Pseudomonas aeruginosa*, and *β-hemolytic streptococci*, which are responsible for delayed healing and infection. We previously reported the antibacterial property of *Odontonema strictum* (OSM) and isolated the active phytosterols (APLs) as a mixture: stigmasterol and *β*-sitosterol.[2] Here, we determined the minimal inhibitory concentrations (MIC) and the Minimum Bactericidal Concentration (MBC) of APLs and the crude extract (CET) on SA by broth dilution method. MICs ranged from 1.84 to 3.68 mg/mL for APLs and from 3.83 to 7.66 mg/mL for CET. The MBC was found to be 7.56 g/mL for APLs and 15.23 mg/mL for CET. The analysis of the total antibacterial activity revealed that extract from 1 g of plant material could be diluted 12.6 times and still retain the ability to inhibit bacterial growth. However, SA was found to be less sensitive to OSM crude extract and APLs. Therefore, application of OSM ground leaves on infected wounds may not effectively treat infection[3].



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