Review: Study of Standardized Herbal Drug Preparations of Justicia gendarussa Burm.f. leaf as Male Contraceptive

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Background
Currently a capsule containing 70% ethanol extract of J. gendarussa leaves has been developed as an alternative for male fertility. Drug quality control must be carried out from the start, starting from the selection of raw materials to the production process. Extract quality control is required for quality control, safety and efficacy. Quality control parameters consist of specific and non-specific parameters. This paper aims to study the standardization of the extract and granulation of J. gendarussa by making the physical properties of J. gendarussa good granules.

Method
- Literature Search in Database: PubMed, ScienceDirect, Google Scholar, and Repository University of Airlanga
- Keywords: Standardized Herbal Drug Preparations, and Justicia gendarussa Burm.f., and Male Contraceptive
Quality evaluation at each stage of the production process for the 70% ethanol extract capsule preparation of J. gendarussa leaves includes the process of making dry simplicia, alkaloid-free simplicia, Extraction process, and granulation process on a pilot scale using a metabolite profile (untargeted metabolite profiling) with the UHPLC-UHR-QTOF-MS instrument. Physical evaluation to select the best grain such as flowability, smooth tilt, angle of rest, moisture content and compressibility.

Result
Metabolite Profiles can be applied as a reliable quality control (QC) tool for herbal medicinal preparations, especially if the quality marking lever has not been determined. Several herbal preparations of J. gendarussa, namely dry acidified crude drugs, ethanol extract, laboratory-made granule preparations, and industrial scale granules, can be distinguished clearly by using a combination of liquid chromatography, ultra high resolution, quadrupole mass spectrometry time-of-flight mass and multivariate analysis [4],[5].

Conclusion
A total of 35 metabolites were identified that were not degraded during the drying process and were relatively stable qualitatively during the process of making capsules for the ethanol extract of 70% J. gendarussa leaves. The metabolite content of J. gendarussa leaves mostly consists of alkaloids, apigenin glycosides, and fatty acids.

References