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Development of a suppositories pilot batch of leaves and stems of *Artemisia annua* grown in Cameroon

Chougouo Kengne R D¹, Domko D F¹, Kouamouo J¹, Djoko E¹, Tane P² and Woessidjewe D^{1,3}

¹Université des Montagnes, Cameroon

²University of Dschang, Cameroon

³University of Joseph Fourier of Grenoble, France

Malaria is the most deadly disease that concerns mostly African children under the age of 5. Its treatment is difficult because of drug resistance to conventional molecules, including Artemisinin-based Combination Therapy (ACT) recommended by WHO. Several studies, for instance those of Chougouo et al., showed that the infusion of *A. annua* is more efficient than ACT after 7 days of treatment, but hardly accepted by children mostly those under 2 years old because of the quantity to administer. The present study is to put in place a more acceptable dosage form for children i.e. suppositories made from *A. annua* grown in Cameroon. To evaluate its quality, the powder of leaves and stems of *A. annua* has been submitted to physicochemical analysis. The particle size was determined by the sieve method and laser diffraction. Artemisinin determined by TLC-densitometry and then read through Mesurim software. Entire flavonoids titrated by aluminum chloride. The formula of medicines established and suppositories were submitted to pharmacotechnical tests. The powder obtained, of bitter taste, greyish-green, with characteristic odor (camphor), is homogeneous with 56.37% of particles in the sieve of diameter over or equal to 63µm. The artemisinin and entire flavonoids contents are respectively of 5mg/g and 0.43mg equivalent to quercetin per gram of dry matter. 250mg suppositories of active principle have been made knowing that, 1g of *A. annua* powder moves 0.72g of suppository C. They are dark-green, shiny, smooth and barrel-shaped. Their average weight is 2.15g, disintegration time 8min 16seconds and the fusion point-35.7°C. These suppositories are in conformity with European Pharmacopoeia. The suppositories will contribute to a better treatment of malaria among children.

Biography

Chougouo Kengne R D has completed her PhD; she is a Pharmacist Officer and Researcher (CER) at the University Mountain Cameroon. She has published more than 20 papers in reputed journals.

nrosinedesiree12@yahoo.fr

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