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# *Effects of sacoglottis gabonensis (baill.) urb. in the management of infantile anemia due to plasmodial and diarrheal infections*

BeackBayengue Sandrine Suzanne[1, 2], Ndomou Mathieu [2], Dhanasekaran Shanmugam[4], AgborAgbor Gabriel[2], Tchiegang Clergé[3], NgonoNgane Rosalie Annie[2]

[1]Centre for Research on Medicinal Plants and Traditional Medicine, Institute of Medical Research and Medicinal Plant Studies, Ministry of Scientific Research and Innovation, Cameroon. Po.Box.13033 Yaoundé, Cameroun
[2]Department of Biochemistryww, University of Douala, P. O. Box 24157, Douala, Cameroon
[3]Department of Food and Nutrition Science, National School of AgroIndustrial Sciences (ENSAI), University of Ngaoundéré, P. O. Box 455, Ngaoundéré, Cameroon.
[4]Sciences division of biochemistry, CSIR-National ChemicalLaboratory, Pune, 411008, Maharashtra, India.

***Abstract***

Statement of the Problem : Anemia is one of the most common public health problems in the world, affecting particularly chidren under 5 years of age with a prevalence in Africa of 60.2%. Anemia is characterized by the deficiency of red blood cells or haemoglobin in the blood due to malaria, diarrhea and iron deficiency in poor countries. Poverty forces people to use traditional medicine for its management. In this work we are evaluated the *in vivo* antianemic activity and *in vitro* antiplasmodial and antibacterial activities of the decoction of the bark of *S. gabonensis*. Methodology : The extract was prepared according to the traditional method and the phytochemical analyzes were made according to the standard methods. Anaemia was induced in rats by intraperitoneal administration of phenyl hydrazine at the dose of 40 mg / kg / day for two days. The decoction was given orally to anemic rats at 207.57 mg/kg body weight, once a day for 14 days. Microdilution was used to evaluate its efficacy against strains of *Plasmodium falciparum* (3D7) and gastroenteritis. Findings: Phytochemical screening indicated the presence of alkaloids, phenolic compounds, coumarins, flavonoids, saponosides and tannins. The decrease of haematological parameters (haemoglobin, red blood cells, hematocrit) induced by phenylhydrazine were significantly ($P < 0.05$) restored after 7 days of treatment compared to the negative control group. The extract exhibited good antiplasmodial activity with $IC_{50}$ = 16.39 ± 2.34 µg/mL and moderate activity on *E. coli, E. aerogenes, S. flexneri and K. pneumoniae* with MIC ≤1.024 µg/mL. This study confirms the use of the stem bark of *gabonensis* in traditional medicine and in the management of infantile anemia.

***Biography:***

Ms Beack Bayengue sandrine suzanne is since 2016 Researcher at the Institute of Medical Research and Medicinal Plant Studies (IMPM) of the Ministry of Scientific Research and Innovation of Cameroon. She is also ending PhD student at the University of Douala. She is interested by child health and would like to contribute to the valorization of Cameroonian medicinal plants by showing the therapeutic effects of these plants that could be used as alternative medicines for primary health care in Cameroon. This is because the sanitary infrastructures are insufficient. Her work is currently focused on finding medicinal plants with multiple therapeutic properties against childhood deficiencies (anemia) and diseases. She has published 4 papers in reputed journals.

***Speaker Publications:***

**Recent publications**

1. Bayengue BSS, Ngane NAR, Tchiegang C (2017) Ethnobotanical survey of medicinal plants used for treating preschool children anemia in an urban setting Douala-Cameroon. African Journal of Plant Sciences 11(5): 160-167.
2. Haile W, Yigzaw K, Amare T(2015) Factors Associated with Anemia among Children Aged 6–23 Months Attending Growth Monitoring at Tsitsika Health Center, Wag-Himra Zone, Northeast Ethiopia. Journal of Nutrition and Metabolism Volume 2015, Article ID 928632, 9 p.
3. Luka CD, Abdulkarim M, Adoga GI, Tijjani H, Olatunde A (2014) Anti-anaemic Potential of Aqueous Extract of Spinacia oleracea Leaf in Phenylhydrazine-treated Rats. New York Science Journal 7(6):14-18.
4. Uddin G, Sadat A, Siddiqui BS (2013) Comparative Antioxidant and Antiplasmodial Activities of 11-O-Galloylbergenin and Bergenin Isolated from Bergenia ligulata. World Applied Sciences Journal 27 (8): 977-981.

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