

Hypothesized biochemical modes of action of palm oils used in ethno-medicine

Authors:

Ibegbulem CO¹,
Egbung GE², Okoro AA²,
Kalu NN³, Nwaogu LA¹
and Igwe KO¹.

Institution:

1. Department of Biochemistry, Federal University of Technology, Owerri, Nigeria.
2. Department of Biochemistry, University of Calabar, Calabar, Nigeria.
3. Department of Biochemistry, Ambrose Alli University, Ekpoma, Nigeria.

Corresponding author:
Ibegbulem CO.

ABSTRACT:

The biochemical modes of action of palm oil (PO) and palm kernel oil (PKO) that are used in ethno-medicine were hypothesized. One thousand randomly selected families in the southeastern and southsouthern parts of Nigeria were used in a face-to-face interview questionnaire-based ethno-medical survey on the use of the palm oils and the ointments made from them to treat infections and febrile seizures in ethno-medicine. The presence of bioactive phytochemical and biochemical constituents with the desired pharmacological activities was detected and their biochemical modes of action hypothesized. When PKO is used to treat febrile seizures, transdermally transported antipyretic agents inhibit the expression or activities of cyclooxygenase (COX) isoforms. In conclusion, the hypothesized modes of action are that the oils are antimicrobials and increase trans-dermal transport of bioactive agents.

Keywords:

Biochemical, ethno-medicine, hypothesis, modes of action, palm oil, palm kernel oil.