



**EFFECTS OF POLYPHENOL-CONTAINING CRUDE EXTRACTS OF
Ipomoea batatas (L.) Lam. and *Basella rubra* Linn. TO THE
ESTRADIOL VALERATE-INDUCED POLYCYSTIC
OVARIAN SYNDROME IN ALBINO RATS**

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ABSTRACT

This paper is intended to discover the potentials of polyphenols from *Ipomoea batatas* and *Basella rubra* extracts against the estradiol valerate (EV) – induced polycystic ovarian syndrome (PCOS) in albino rats. Thirty-six (36) albino rats were divided into nine groups: T₁ and T₂ were treated with 100 and 500 mg/kg *Ipomoea batatas* extracts, respectively; T₃ and T₄ with 100 and 500 mg/kg *Basella rubra* extracts, respectively; T₅ and T₆ with 100 and 500 mg/kg combined extracts, respectively; and the control groups: C₀, is the normal group; C₋, receiving no treatment; and C₊, which received 50mg/kg metformin HCl. After the treatment period, the different concentration levels of *Ipomoea batatas* extract, *Basella rubra* extract and combined plant extracts showed their ability to normalize the estrous cycle and the prolonged estrus stage of the induced subjects. The elimination of follicular cysts was noticed in all treatment groups except for T₃ and T₅. Presence of many healthy follicles was also observed in all treatment groups. The present study indicated that polyphenol-containing crude extracts of *Basella rubra* and *Ipomoea batatas* have potential efficacy in the prevention and maintenance of PCOS. Further studies regarding their therapeutic effects against PCOS should be carried out to prove their therapeutic potential.

Keywords: *Basella rubra*, estradiol valerate, estrous cycle, infertility, *Ipomoea batatas*, PCOS, polyphenol



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