

Immunomodulatory and erythropoietic effects of aqueous extract of the fruits of *Solanum torvum* Swartz (Solanaceae)

George A. Koffuor, Patrick Amoateng, Terrick A. Andey

Department of Pharmacology, Faculty of Pharmacy and Pharmaceutical Sciences, College of Health Sciences, Kumasi, Ghana

ABSTRACT

Aim The effect of *Solanum torvum* (Fam: Solanaceae) on delayed type hypersensitivity (DTH) response, hemagglutinating antibody (HA) titer, white blood cells (WBC), red blood cells (RBC) and hemoglobin concentration was investigated in Sprague-Dawley rats to establish immunomodulatory and erythropoietic activity. **Materials and Methods** Sheep red blood cells (SRBC)-immunized and challenged rats were treated with *Solanum torvum* extract, levamisole and dexamethasone. Phenylhydrazine (PHZ)-induced anemia in rats was treated with the extract. **Results** The aqueous *Solanum torvum* extract and levamisole significantly enhanced DTH response, increased HA titer and WBC count, while dexamethasone significantly decreased DTH response, did not increase HA titer, and did not enhance WBC profile. The extract and Feroglobin, the reference heamatinic, were able to reverse PHZ-induced anemia, and increase the RBCs and Hb concentration above baseline values within 24 days. **Conclusion** *Solanum torvum* extract showed a concentration-dependent immunostimulant and erythropoietic activity.

KEYWORDS

Delayed type hypersensitivity response . hemagglutinating antibody titer . phenylhydrazine . sheep red blood cells . *Solanum torvum*

REFERENCES

2026 Phcog.Net - All rights reserved. Published on the JrnIXPress platform.