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Abstract Special Issue

Immunomodulatory activity of *Rhipsalis Neves-Armondii* K. Schum. (Cactaceae)

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Abstract:

Objective

Rhipsalis neves-armondii K. Schum. (Cactaceae) plant has been used for several decades to improve immune function in Africa. In a bid to justify this traditional use and also owing to the limited scientific data on pharmacological activities of R. *neves-armondii*, the aim of this study was to evaluate the immunomodulatory properties of the aerial parts of R. *neves-armondii* aqueous crude extract (RCE) and its fractions (RHF = N-hexane fraction, REF = Ethylacetate fraction and RMF = Methanol fraction) in rodents..

Methods

This was evaluated using delayed-type hypersensitivity reaction (DTHR), humoral antibody synthesis (HAS), *in vivo* leukocyte mobilization and *in vitro* immunostimulatory activity. Acute toxicity and lethality test as well as phytochemical screening were also evaluated.

Key findings

RCE at150 mg/kg and REF at 100 mg/kg each elicited 87.9 % inhibition of DTHR while RHF (150 mg/kg) and RMF (100 mg/kg) elicited 69.7 % and 71.2 % inhibition of DTHR respectively. All fractions significantly caused an increase in leukocyte mobilization into the peritoneal fluid with neutrophils being more mobilized. RCE and REF each at 40 ug/ml caused 153.55 % and 176.36 % phagocytic stimulations respectively. The REF at 50 mg/kg produced elevation of primary (2.70±0.34) antibody titres which were higher compared to the control. RCE up to 5000 mg/kg administered orally showed no toxicity and sign of intoxication after a total of 48 h observation period. The phytochemical screening of RCE and its fractions revealed presence of notable phytoconstituents like carbohydrates, resins, reducing sugars, alkaloids, terpenoids, flavonoids and steroids.

Conclusion

The results of the study demonstrated that RCE and its fractions possess cellular and humoral immunomodulatory properties (REF being the most active).

Biography:

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