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 = Ethyl acetate 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 at 150 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 \mu g/ml caused 153.55 \% and 176.36 \% phagocytic stimulations respectively. The REF at 50 mg/kg produced elevation of primary (2.70\pm0.34) 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).

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