Intestinal Spasmolytic and Tracheal Relaxant Effect of Rooibos Extract on Isolated Smooth Muscle Preparations

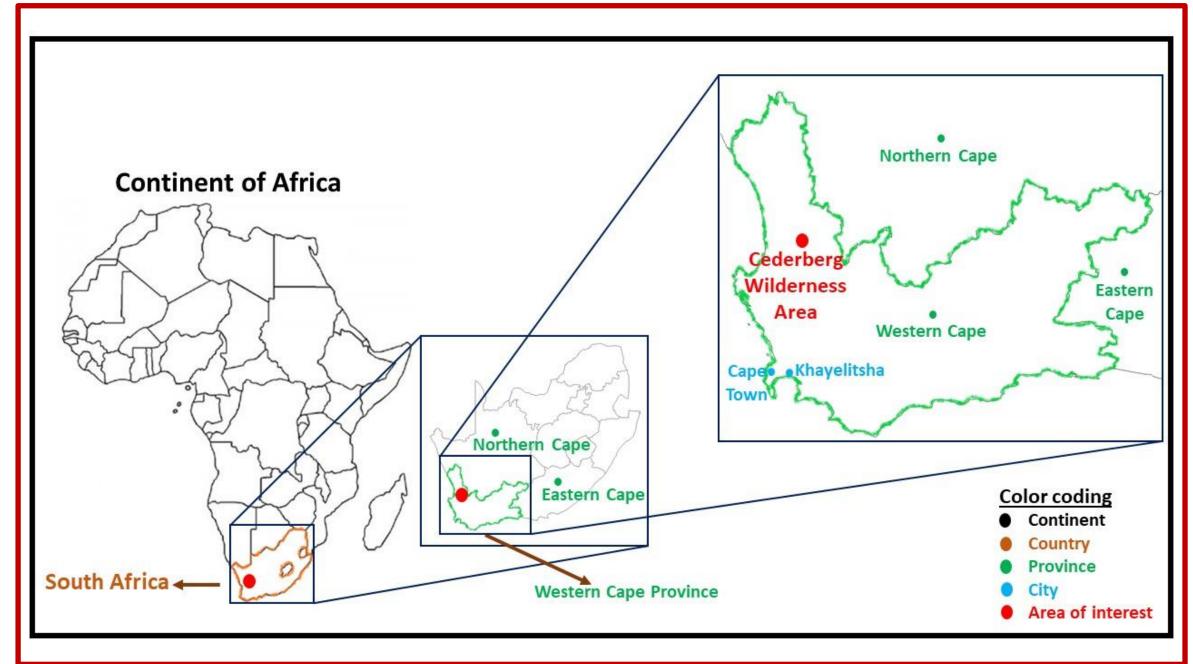
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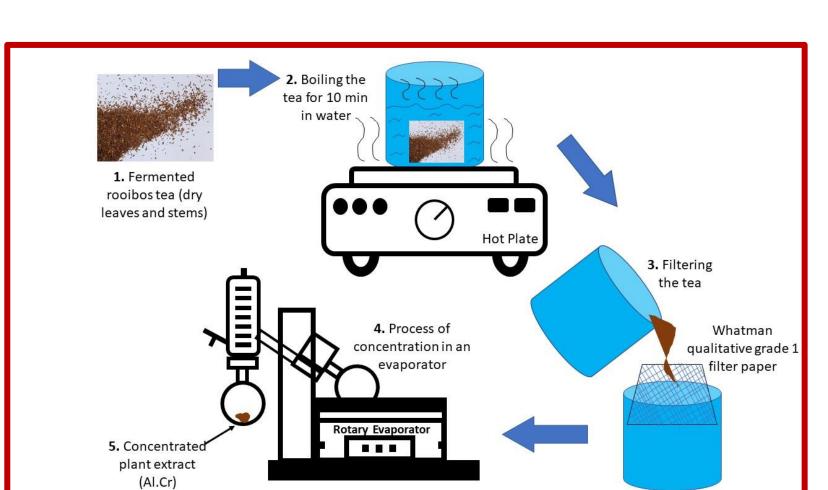
Background & Objective

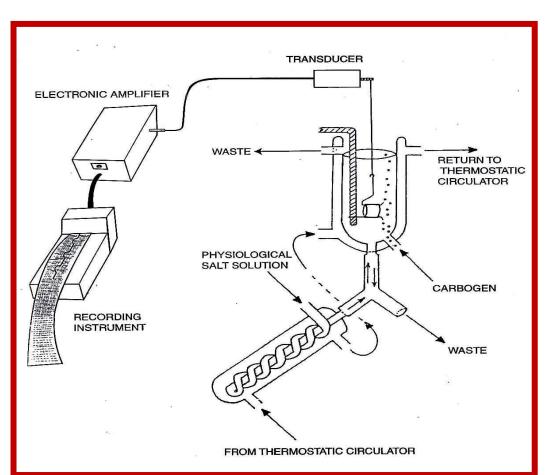
Aspalathus linearis (Burm. f.) R.Dahlgren, or rooibos as it is commonly known, is a local plant of South Africa. The plant is used traditionally in gastrointestinal (GI) conditions like diarrhea, colic, and cramps. It is also used to help in respiratory disorders like asthma. The aim here was to provide scientific justification for the traditional uses of this herb.



Methodology

An aqueous extract (Al.Cr or AL) of the fermented variety of rooibos tea (dried leaves and stems) was prepared. Al.Cr was tested for pharmacological activity on isolated tissue preparations.





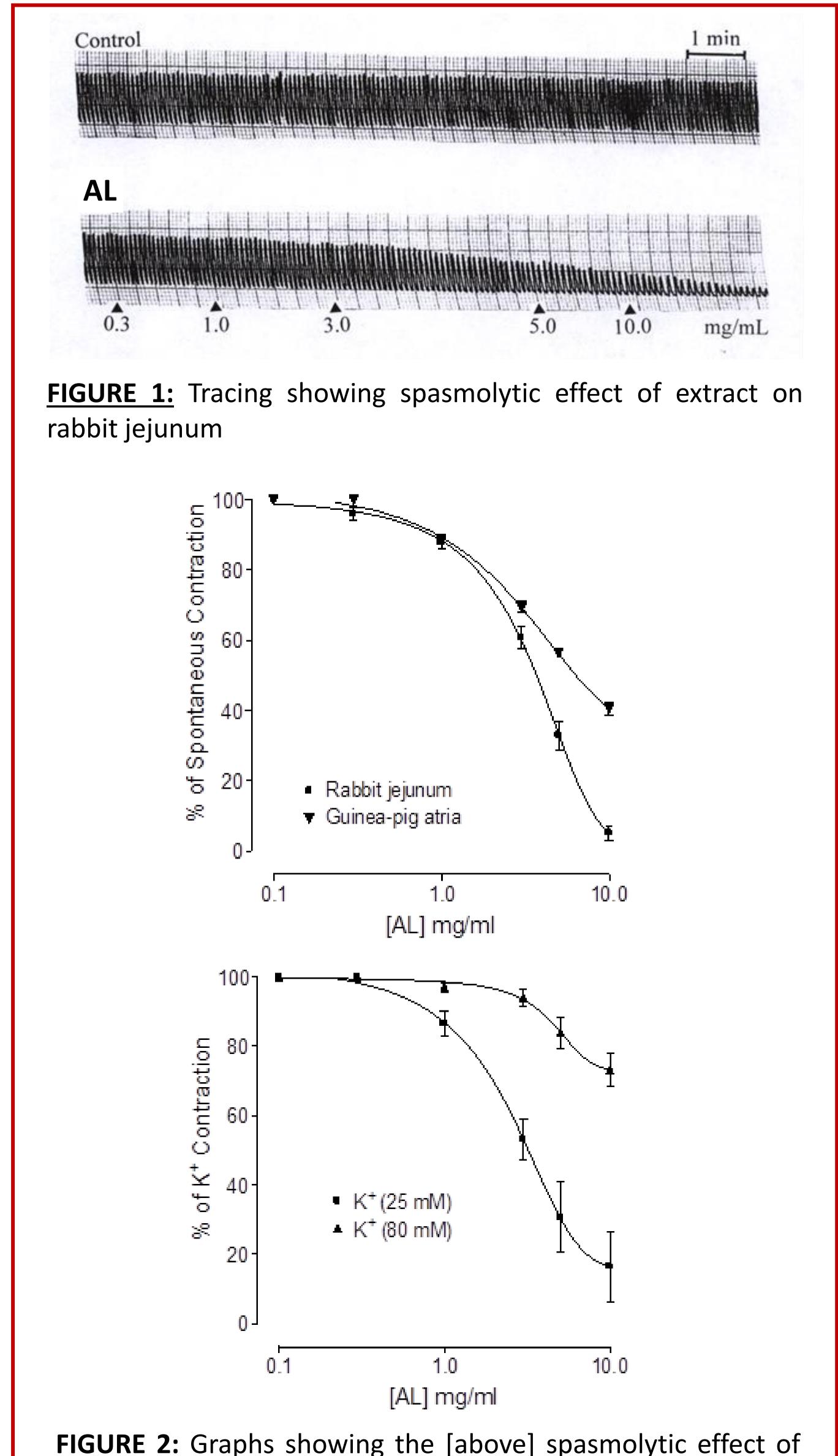
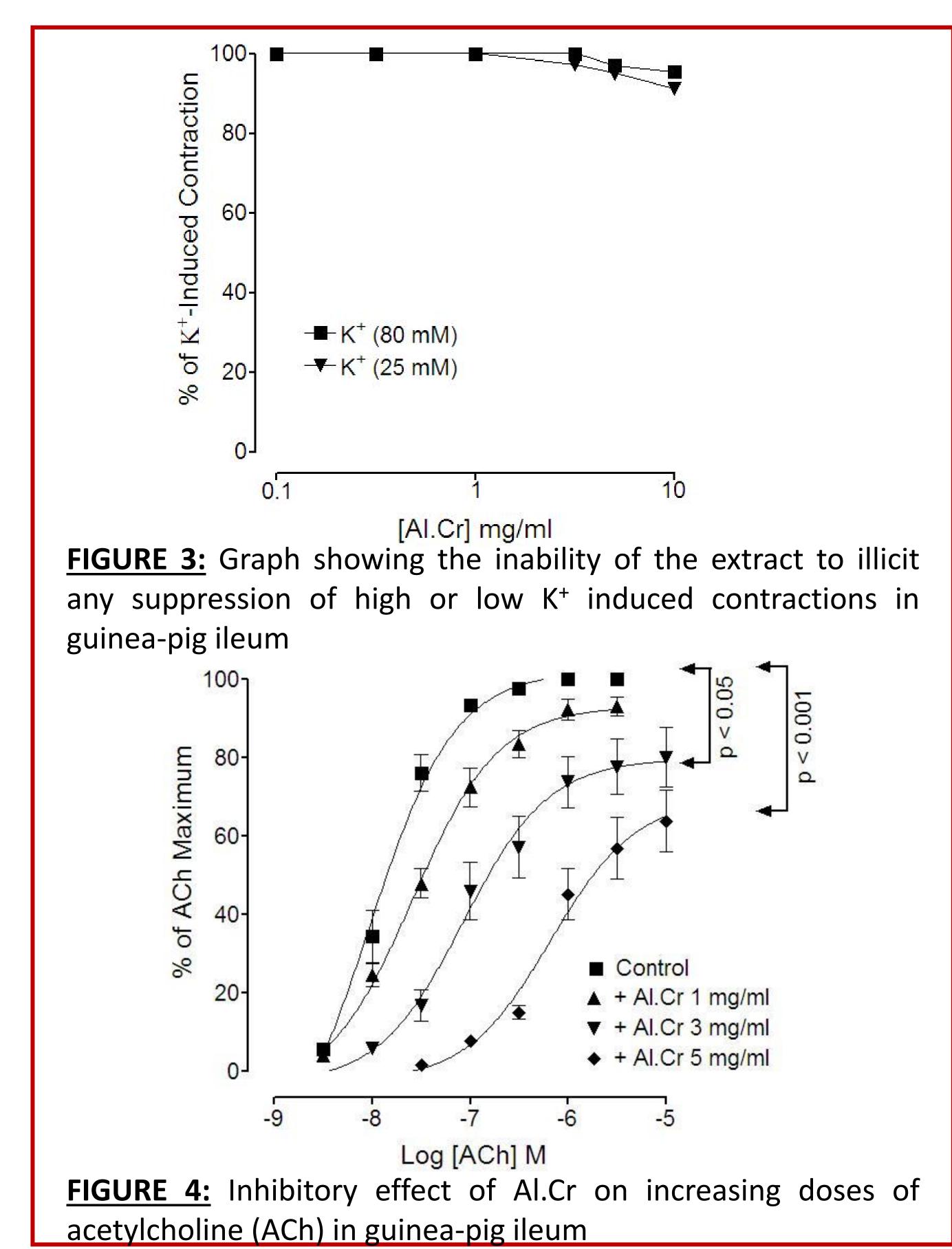
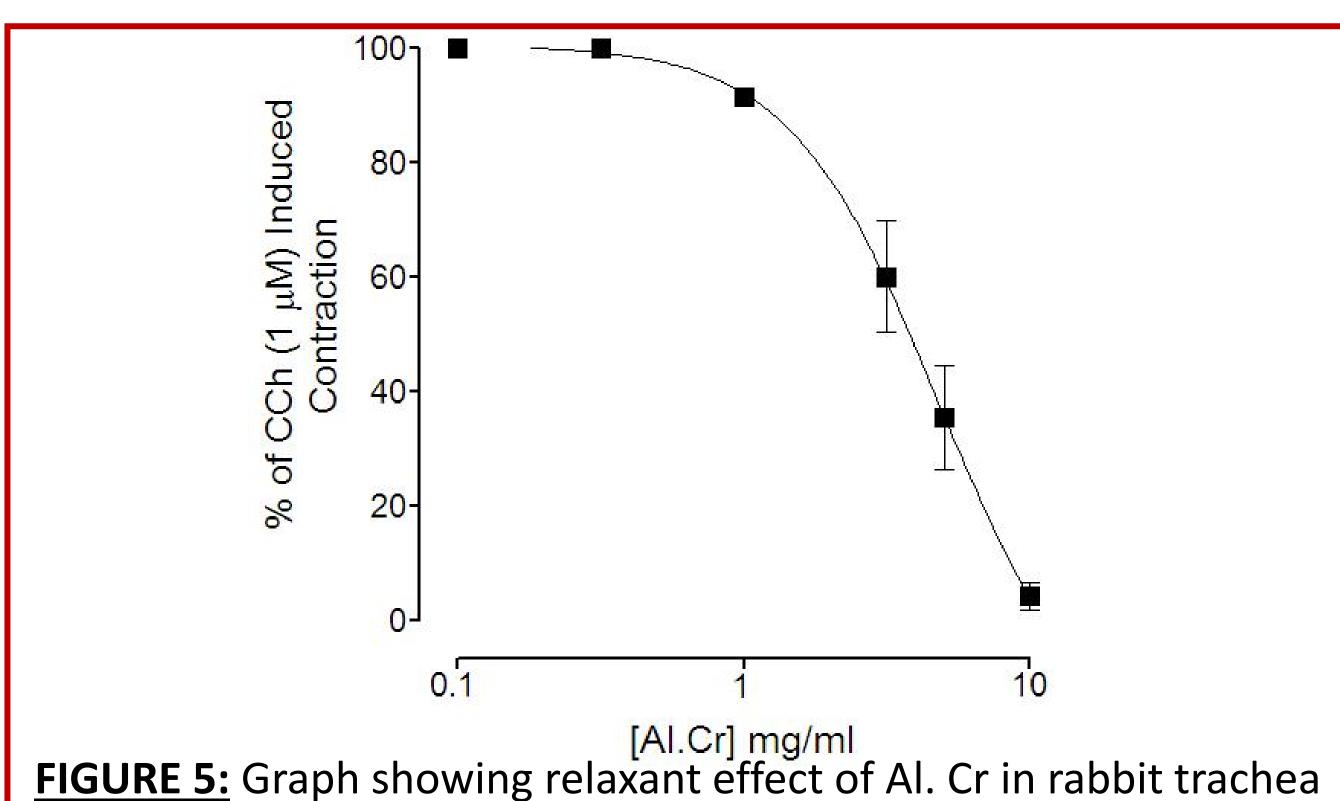


FIGURE 2: Graphs showing the [above] spasmolytic effect of the extract in rabbit jejunum and guinea-pig atria. [Below] shows how the extract relaxed high and low K⁺ induced contractions in rabbit jejunum.





Conclusion

The results show a spasmolytic effect of Al.Cr in rabbit jejunum and guinea-pig intestinal tissues that, in the later, was not mediated via suppression of K⁺ induced contractions. It points towards the use of rooibos as an antidiarrheal. Al.Cr also exhibited a tracheal relaxant effect that is related to the use of this herb in airway hyperresponsiveness.