Comparative *in* vitro antioxidant activities of aqueous and n-hexane extracts of *Cucurbita maxima* seed

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Background

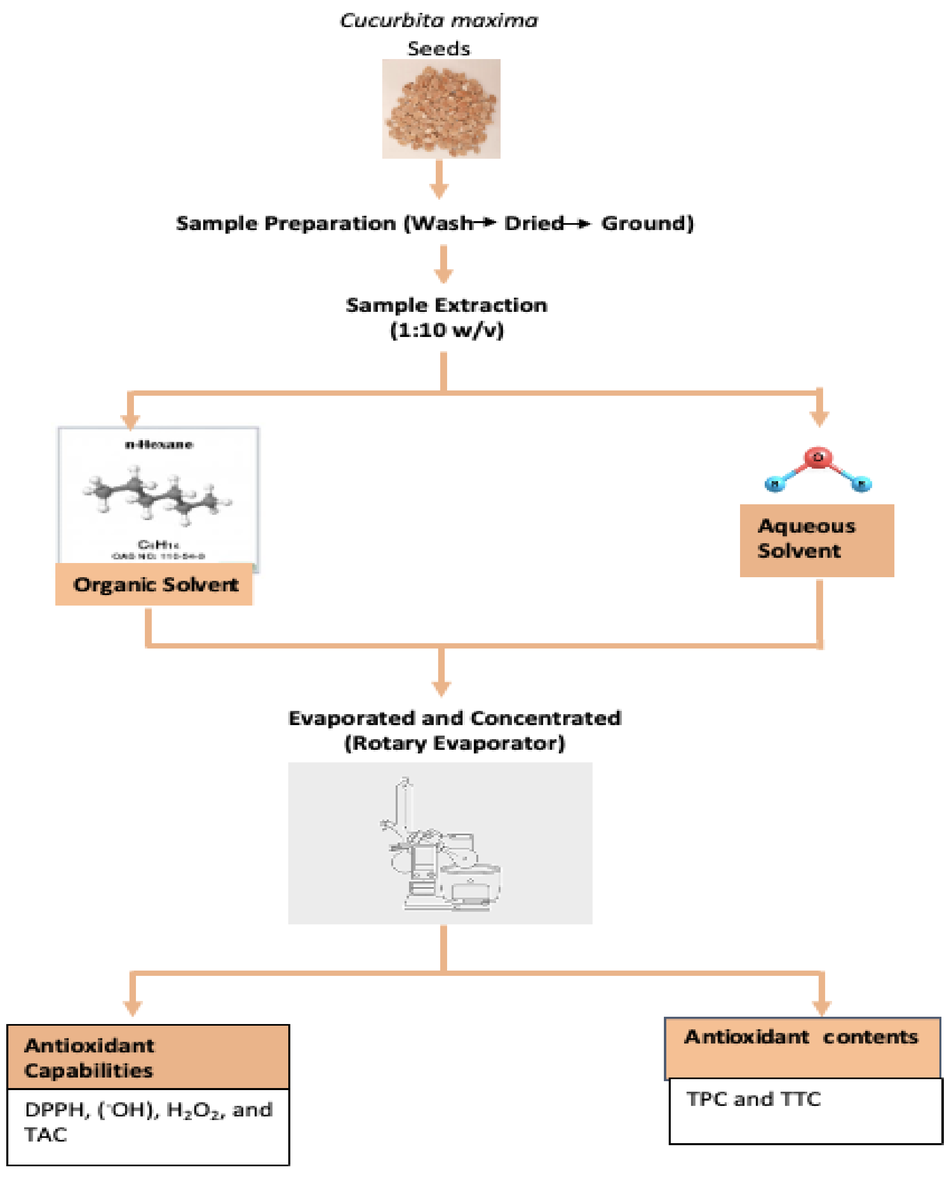
- *Cucurbita maxima* (pumpkin) belongs to the family *Cucurbitaceae*. Pumpkin is an economically important vegetable crop, with medicinal and nutritional values (Abd El-Aziz and El-kalek, 2011; Kaur *et al.,* 2020). *Cucurbita maxima* (pumpkin) contain secondary metabolites that were proposed to contribute to its α-amylase inhibition, antioxidant and anticancer activities (Saha et al., 2011). The local practitioners used *C. maxima* for the management of diarrhea.

Objective

This study was design to evaluate the *in vitro* antioxidant activities of *Cucurbita maxima* (pumpkin) seed.

Figure 1: *Cucurbita maxima* (pumpkin) fruit and seed

Methodology



Results

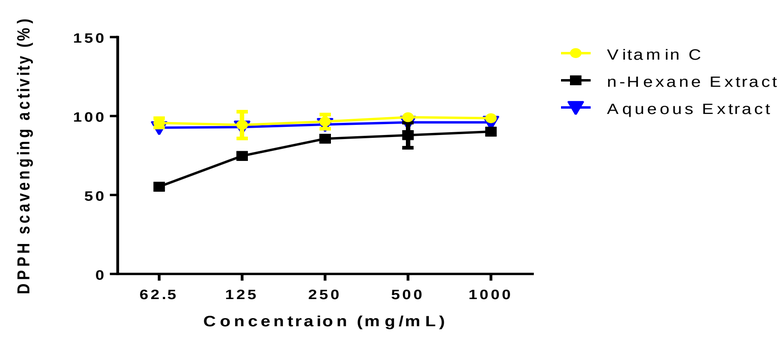


Figure 2: DPPH radical scavenging activities of n-hexane and aqueous *Cucurbita maxima* seed extracts

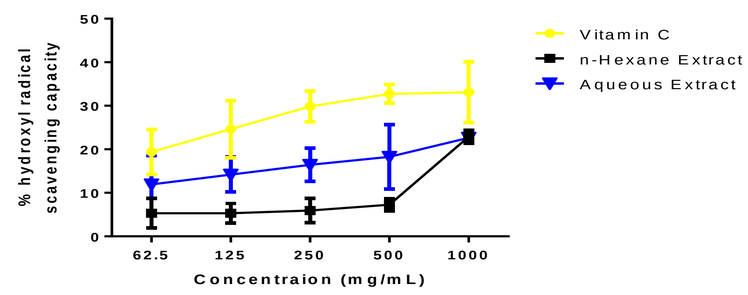


Figure 3: Hydroxyl ($^{-}$OH) radical scavenging activities of n-hexane and aqueous *Cucurbita maxima* seed extracts

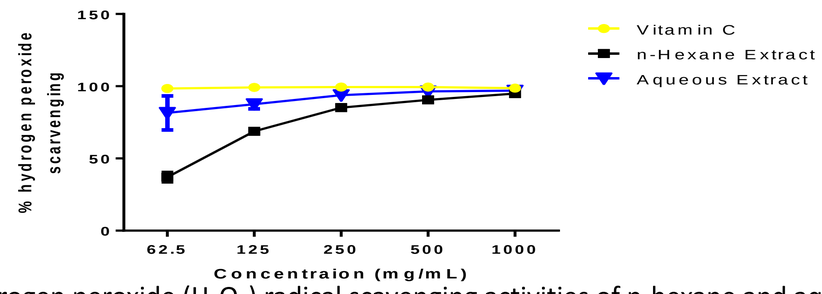


Figure 4: Hydrogen peroxide (H_2O_2) radical scavenging activities of n-hexane and aqueous *Cucurbita maxima* seed extracts

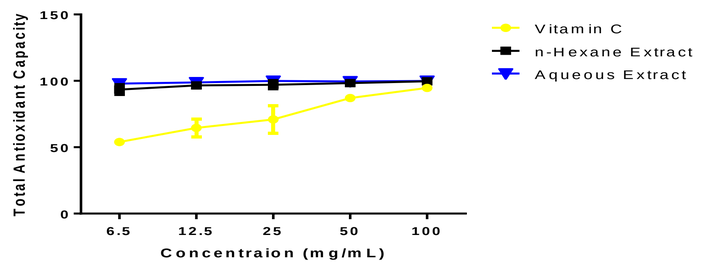


Figure 5: Total Antioxidant capacity of n-hexane and aqueous *Cucurbita maxima* seed extracts

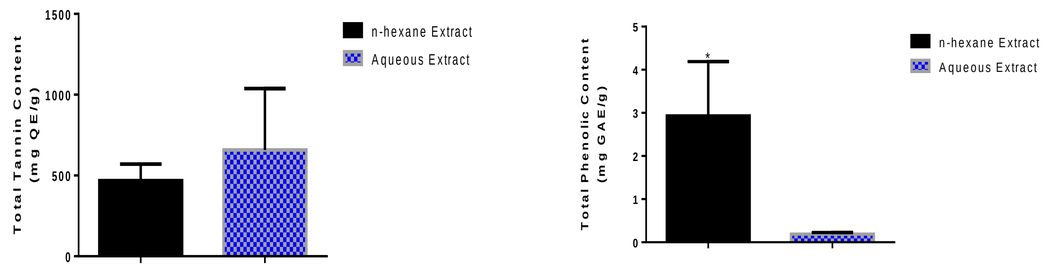


Figure 6: Total Tannin and total phenolic contents of n-hexane and aqueous *Cucurbita maxima* seed extracts
Values are means ± SD of triplicate determinations
Values with superscript (*) are significantly high

Conclusion

The study concludes that n-hexane and aqueous *Cucurbita maxima* (pumpkin) seed extracts possess *in vitro* antioxidant activities, they contain appreciable total tannins and total phenolics contents.

References

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3. Sharma, P., Kaur, G., Kehinde, B. A., Chhikara, N., Panghal, A., & Kaur, H. (2020). Pharmacological and biomedical uses of extracts of pumpkin and its relatives and applications in the food industry: a review. *International Journal of Vegetable Science, 26*(1), 79-95.