

عنوان مقاله:

Study of Anti-Thrombocyte Activity of Cassia fistula Seeds Extract and It's Total Phenolic and Flavonoid Content, In Vitro Antioxidant and Anti-Inflammatory Activities

محل انتشار:

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نویسندگان:

Fazle Rabbi Shakil Ahmed - *Department of Pharmacy, Khwaja Yunus Ali University, Enayetpur, Chouhali, Sirajganj-6701, Bangladesh*

Mst. Jesmin Sultana - *Department of Materials Science and Engineering, University of Rajshahi, Rajshahi-6205, Bangladesh*

Afroza Sultana - *Department of Pharmacy, Khwaja Yunus Ali University, Enayetpur, Chouhali, Sirajganj-6701, Bangladesh*

Md. Ferdous Alom - *Department of Pharmacy, Khwaja Yunus Ali University, Enayetpur, Chouhali, Sirajganj-6701, Bangladesh*

خلاصه مقاله:

The purpose of this study was to measure the total phenol and flavonoid content and assess the antioxidant and anti-thrombocyte activity in ethanol extracts of Cassia fistula seeds. Aluminum chloride was used to calculate the amount of flavonoids, and Folin-Ciocalteu reagent was used to calculate the total amount of phenolic compounds using a spectrophotometric method. The in vitro antioxidant activity of the analyzed extracts was evaluated utilizing the DPPH approach. The total phenolics and flavonoid contents in the seeds extract Cassia fistula 246 ± 0.08 mg GAE/g dw and 118 ± 0.01 mg QE/g dw, respectively. The obtained results concluded that it may be considered a good amount of phenolic and flavonoid compounds. The in vitro anti-inflammatory properties showed the highest percentage inhibition of protein denaturation was 54% for 45 μ g/ml and 70% for the reference drug diclofenac sodium at a similar dose. The minimum inhibition of hemolysis 58% was observed at 50 μ g/mL of Cassia fistula seeds extract and 81% for the same dose of standard aspirin. The results presented that the ethanol seeds extract of Cassia fistula has potential anti-thrombocyte activity. IC₅₀ values were used to express the antioxidant activity of the investigated extracts. The IC₅₀ values was found to be 8.90 μ g/ml for ethanol seeds extract which is comparable to that of ascorbic acid (IC₅₀ = 6.73 μ g/ml) a well-known standard antioxidant. Among these results, the lower the IC₅₀ showed the higher the free radical scavenging activity. Among these findings, the stronger the free radical scavenging activity was seen the lower the IC₅₀ indicated. Based on all of the findings, we concluded that the anti-thrombocyte antioxidant and anti-inflammatory activities may be caused by phytochemicals identified in C. fistula extract.

کلمات کلیدی:

Cassia fistula Phytochemicals Anti, thrombocyte Antioxidant Anti, Inflammatory

لینک ثابت مقاله در پایگاه سیویلیکا:

