

## ***Prunus armeniaca* L. (apricot) two fractions ameliorate TNBS-induced ulcerative colitis in rats**

**M. Asadi<sup>1,\*</sup>, M. Minaiyan<sup>1</sup>, A. Ghannadi<sup>2</sup>, P. Mahzouni<sup>3</sup>**

<sup>1</sup>*Department of Pharmacology, School of Pharmacy, Isfahan University of Medical Sciences, Isfahan, Iran*

<sup>2</sup>*Department of Pharmacognosy, School of Pharmacy, Isfahan University of Medical Sciences, Isfahan, Iran*

<sup>3</sup>*Department of Pathology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran*

**Background and Aims:** *Prunus armeniaca* L. (Apricot) is a tree cultivated in different parts of the world. Apricot kernel as a good dietary supplement has shown antioxidant, anti-inflammatory and other pharmacologic properties which suggest that it may be functional as an anticolitis agent. In this study we evaluated the effects of apricot kernel extract and oil on ulcerative colitis in rats. Rats were fasted for 36 h before the experiment.

**Methods:** Colitis was induced by intra-rectal instillation of 50 mg/kg TNBS (trinitrobenzene sulfonic acid) in male Wistar rats. Treatments were started 6 h after colitis induction and continued every 24 h for 5 days. Apricot kernel extract (100, 200, 400 mg/kg p.o. & 100, 400 mg/kg i.p.) and apricot kernel extract/oil (100, 200, 400 mg/kg p.o.) were used as experimental treatments and prednisolone (4 mg/kg p.o. & i.p.) was used as reference drug. At the 6th day colon tissue was removed and macroscopic and histologic parameters were evaluated.

**Results:** Ulcer index and total colitis index as representative of macroscopic and histologic parameters respectively showed ameliorating effects for experimental groups specially groups treated by intraperitoneal (i.p.) administration route. Results also demonstrated that oil fraction was not able to potentiate the effects of extract.

**Conclusions:** These data suggest that apricot kernel hydroalcoholic extract can be a candidate for further studies on clinical settings and being introduced as a complementary medicine for inflammatory bowel disorder in market.

**Keywords:** *Prunus armeniaca*; Inflammation; Colitis; Extracts; TNBS; Rats