

## عنوان مقاله:

An experimental model on the protective impact of nanosilymarin on ulcerative colitis induced by TNBS in rats: The inclusion of TLR $\epsilon$  / NF- $\kappa$ B pathway

## محل انتشار:

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## خلاصه مقاله:

Objective(s): The present work aimed to assess the protective impacts of nanosilymarin or silymarin on colitis induced by TNBS in rats. Materials and Methods: Induction of acute colitis was conducted by rectally administering 2 ml of TNBS solution. About 2 hr followed by induction of colitis, the rats were given dexamethasone (2 mg / kg), normal saline, silymarin (50, 100, and 200 mg / kg), and nanosilymarin (50, 100, and 200 mg / kg) orally for two weeks. Damage was assessed at the macroscopic and microscopic levels. MPO enzyme activity was measured using biochemical technique and also ELISA kit was used to measure tissue levels of TNF- $\alpha$  and IL-1 $\beta$  and Western blot analysis was utilized to study the expression level of P $\epsilon$ 5 TLR $\epsilon$  and pNF- $\kappa$ B proteins. According to the results, dexamethasone (2

mg / kg) and nanosilymarin (۲۰۰ mg / kg) reduced tissue damages than the TNBS group ( $P < 0.001$ ). Moreover, these drugs reduced MPO activity ( $P < 0.001$ ) and levels of TNF- $\alpha$  and IL-1 $\beta$  ( $P < 0.001$ ) in colon tissue than the TNBS group and also the expression of p68 TLR4 and pNF- $\kappa$ B proteins was decreased when in comparison to the TNBS group. Conclusion: It is proposed that nanosilymarin reduce colon inflammation in TNBS-induced experimental colitis .by inhibition of the TLR4 / NF $\kappa$ B molecular path

### کلمات کلیدی:

Colitis, Nanosilymarin, TLR4/NF- $\kappa$ B, TNBS

### لینک ثابت مقاله در پایگاه سیویلیکا:

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