

# CACTUS PEAR FRUIT EXTRACT EXERTS ANTI-INFLAMMATORY EFFECTS ON CARRAGEENIN-INDUCED RAT PLEURISY

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## Introduction

Cactus pear [*Opuntia ficus indica*, (L.) Mill] has recently been acknowledged as a source of bioactive compounds able to act as antioxidants *in vitro*, and to decrease oxidative stress *in vivo* (1). In this study, we have assessed the effects of a cactus pear fruit extract from yellow cultivar using a rat carrageenin-induced pleurisy model.

## Materials and Methods

Cactus pear fruit extract was obtained as previously reported (1). Carrageenin pleurisy induction, measurement of pleural exudates and inflammatory cell collection were carried out as previously described (2).

## Results and Conclusions

Injection of 0.2 ml of 1% lambda-carrageenin into the pleural cavity of rats caused an accumulation of inflammatory exudates. The average volume of exudates 24 h after pleurisy induction in control animals (carrageenin only) was (0.36±0.01) ml per rat (n=5) and the total leucocytes number migrated into the pleural cavity was (125±11) x 10<sup>6</sup> per rat (n=5). Pretreatment of rats with cactus pear extract (20g fresh fruit equivalent/Kg/p.o.), 30 min prior carrageenin injection, caused a significant inhibition of both exudate volume and total leukocyte number as compared to control group. In fact the volume of the exudates was significantly reduced by about 80% (P<0.001; n=5) while the total cells migrated into the pleural cavity decreased by about 59% (P<0.001; n=5). In conclusion our results suggest that cactus pear fruit extract from yellow cultivar significantly reduces carrageenin-induced pleural inflammation in rats.

## References

1. Livrea M.A. Herbal Medicines. 2003; 537-556.
2. Ianaro A. FEBS Lett. 2001; 239-244.