

Effects of *Epimedium Koreanum Nakai* in carbon tetrachloride induced cirrhotic rats

Insu Kim, Joowan Kim, Hongtae Kim, Taeho Oh, Kwangho Jang, Keunwoo Lee*

Department of Veterinary Medicine, Graduate School, Kyungpook National University, Daegu, Korea

Purpose: *Epimedium Koreanum Nakai* (EKN), Berberidaceae family, is used folk medicine for tonic, hypotensive, anti-rheumatic, sex hormone disorder and amnesia treat purpose. The healing effects of hydrophilic components of EKN on in CCl₄ intoxicated rats were evaluated biological aspects.

Material and Methods: The rats were divided 3 group; naive group was treated saline for 13 weeks, CCl₄ group was administered 1ml/kg of CCl₄ (1:1 olive oil v/v) for 9 weeks and then saline was administered for 4 weeks, EKN group was administered 1ml/kg of CCl₄ (1:1 olive oil v/v) for 9 weeks and then EKN aqueous extract was administered for 4 weeks. Results:

1. In organ weight aspect, relative testis, epididymis weight of EKN group significantly (P<0.05) increased compared to that of CCl₄ group

2. In hematological aspect, PCV, MCV of EKN group were significantly (P<0.01, P<0.05) increased compared to that of CCl₄ group and MCH, MCHC were significantly (P<0.01, P<0.05) decreased. In Relative basophile count of WBC, EKN group were significantly (P<0.01) decreased compared to that of CCl₄ group

3. In serum chemical aspect, AST, ALT, ALP of EKN group were significantly (P<0.01, P<0.05) decreased compared to that of CCl₄ group.

4. In histologic aspect, EKN groups were significant (P<0.05, P<0.01) cured in liver (fibrotic regions in parenchyma, mean diameters of hepatic lobules), kidney (percentages of degenerative regions, number of degenerative tubules, number of vasodilated atrophic glomerulus), testis (number of atrophic seminiferous tubules), epididymis (epididymal tubules showing oligospermatozoa)

Conclusion: result suggest that EKN aqueous extract may be useful as a healing drug in CCl₄ intoxicated cirrhotic rat.

Key words: EKN, CCl₄, liver, kidney, testis, epididymis, cirrhotic rat.

* Corresponding author: kwolee@knu.ac.kr