



# 1<sup>st</sup> International Congress of Veterinary Pharmacology & Pharmaceutical Sciences (1<sup>st</sup> ICVPS)

October 4 - 5, 2008 Tehran - Iran

## Histopathological study on the effect of saffron extract in prevention of gentamicin-induced nephrotoxicity in the rat

Derakhshanfar A<sup>1</sup>, Abbasabadi N<sup>1</sup>, Mehrabani M<sup>2</sup>, Dehghani Beidokhti M<sup>1</sup>

<sup>1</sup>Faculty of Veterinary Medicine, Shahid Bahonar University, Kerman, Iran, <sup>2</sup>Faculty of Pharmacy, Kerman University of Medical sciences, Kerman, Iran (vet.narjes@yahoo.com)

Gentamicin is an aminoglycoside which used against gram negative bacteria ,but its clinical use has been restricted due to nephrotoxicity.Saffron is one of the food additives with pharmaceutic effects.In this research ,we attempted to study the role of saffron extract in prevention of gentamicin-induced nephrotoxicity.36 male rats were divided randomly into 5 equal groups and injected as follow:Group 1:Gentamicin 100mg/kg daily (IM) Group 2:Saffron extract 5 mg/kg daily (IP) Group 3:Co-treatment of saffron extract and gentamicin with above mentioned doses. Group 4:At first saffron extract and then 1 hour later gentamicin with above mentioned doses.group 5:Normal saline 1/5 cc(IM)All injections were done for 8 days.Histopathological examination revealed severe acute tubular necrosis of the full thickness of the cortex,glomerularatrophy,glomerular sclerosis,hyperemia,periglomerular fibrosis,hyalin cast (thyroidization),tubular dilation and mononuclear interstitial nephritis in group 1,hyperemia in group 2,normal tissue structure in group 3,acute tubular necrosis and apoptosis of the external cortex,hyperemia and glomerular atrophy in group 4 and normal tissue structure in group 5.The results of this study showed that although the pretreatment with saffron extract can alternate the gentamicin-induced nephrotoxicity,co-treatment of gentamicin and saffron extract can prevent the nephrotoxic effect of gentamicin.

**Keywords:** Saffron extract, gentamicin, nephrotoxicity, prevention

---

## Intravenous administration of Tranexamic acid to control of hemorrhagic in cattle

Torki E, Rahimi ZS, Nikaein D, Danesh R, Rezaii H, Mansour H

zsadat.rahimi@gmail.com

Intravenous administration of tranexamic acid to control of hemorrhagic in cattle Tranexamic acid inhibits plasminogen activation so prevents fibrinolysis . in medicine, it is used to treat various conditions in which there are bleeding or risk of bleeding . some of the more common causes of hemorrhay in cattle are :abomasal ulcer, laceration of arteries in the wall of the vagina as a result of dystocia, and ruptured middle uterine artery during prolapse or torsion of uterus . Tranexamic acid (1 gr/kg , in one liter of saline , Qid , for 3 days ) was administered intravenously because of abomasal ulcer in 10 cattles to control of hemorrhagic . We think that tranexamic acid can control hemorrhagic , effectively . some drugs are used to assist coagulation and arrest hemorrhagic in some cases , but there is limit information on their efficacy . We can find no reports of clinical administration of tranexamic acid in veterinary literature . Therefore , this can be the first published report of intravenous administration of tranexamic acid in cattel .

**Keywords:** Intravenous,Tranexamic acid,Hemorrhagic,Cattle,Coagulation