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PUBLICATION HISTORY Acta Physiologica 2006– Acta Physiologica Scandinavica 1940–2005 Skandinavisches Archiv für Physiologie 1889–1939 (p<0,05). GSNO-treatment decreased MDA levels and improved histopathological injury in the tissues (p<0,05). MPO levels in intestinal tissue decreased after the treatment (p<0,05). GSNO did not change GSH levels of both tissues. I/R was induced expression of NF-kB in intestine. Immunohystochemical expression of NF-kB was attenuated by GSNO-treatment in intestinal tissue (p<0,001).

CONCLUSION: Treatment with GSNO provided protection against oxidative damage and histopathological changes in the intestine and lung injury induced by intestinal I/R.

## PC085

#### Effects of Resveratrol on In Vitro Stomach Smooth Muscle Contraction in Rats with Hepatocellular Carcinoma

<u>Aynur Koç</u><sup>1</sup>, Seda Çetinkaya<sup>3</sup>, Hatice Solak<sup>1</sup>, Zülfikare Işık Solak Görmüş<sup>1</sup>, Selim Kutlu<sup>1</sup>, Aydan Özgörgülü<sup>2</sup>

 <sup>1</sup>Necmettin Erbakan University, Meram Faculty of Medicine, Physiology, Konya, Turkey
<sup>2</sup>Necmettin Erbakan University, Meram Faculty of Medicine, Histology and Embryology, Konya, Turkey
<sup>3</sup>KTO Karatay University, Faculty of Medicine, Histology and Embryology, Konya, Turkey

AIM: Hepatocellular carcinoma (HCC) is the fifth most common cancer in the world. Resveratrol is a polyphenol antiinflammatory. that has antiproliferative, antitumoral effects. There are studies on relaxant effects of resveratrol in various smooth muscles such as aorta, gallbladder, corpus cavernosum. In this study, we aimed to determine the effect of resveratrol on gastric smooth muscle contraction in HCC.

METHODS: 3 groups were formed using Wistar albino male rats: 1) Control Group (n=8) were injected 0.9 % NaCl intraperitoneally once daily for 80 days.

2) Diethylnitrosamine (DEN) group (n=8), DEN (100 mg/kg) was injected intraperitoneally once per week for 9 weeks and HCC was generated. 3) DEN+Resveratrol group (n=8), following DEN administration, resveratrol (100 mg/kg/day) was intraperitoneally for injected 14 days. Animals were sacrificed under anesthesia, then the stomachs were removed and placed in Krebs solution. The liver was histopathologically examined for tumor formation and HCC was detected. 2 x 10 mm strips were prepared longitudinally from each animal's stomach smooth muscle tissue. Muscle strips that applied 2 g tension were washed with 15 minute intervals and allowed to equilibrate for 1 hour in isolated organ bath. Then, contractions were induced by 10-5 M acetylcholine (Ach). Spontaneous contractions, Ach-induced contractions, and 10 minute

plateau amplitudes of muscle strips were recorded. One way ANOVA was used for statistical evaluation. RESULTS: There was a significant increase in Achinduced contractions in DEN group  $(3505.21\pm268.05)$ compared with control group  $(2440.32\pm268.05)$ (p<0.05). Spontaneous contractions (974.95±124.80), Ach-induced contractions (1741.17±268.05) and 10 minute plateau amplitudes (1468.85±234.17) of DEN +Resveratrol group were decreased compared with DEN group (1731.23±124.80; 2440.32±268.05; 2107.58±234.17) (p<0.05).

CONCLUSION: This study suggests that resveratrol has a relaxing effect in gastric smooth muscles of HCC-induced rats.

# PC086

## Antioxidant Effects of Persimmon (Diospyros Kaki L.) Against Ethanol-induced Gastric Ulcer in Rats

Ayhan Tanyeli<sup>1</sup>, Mustafa Can Güler<sup>1</sup>, Ersen Eraslan<sup>1</sup>, Mehmet Ramazan Bozhüyük<sup>2</sup>, Nezahat Kurt<sup>3</sup> <sup>1</sup>Department of Physiology, Faculty of Medicine, Ataturk University, Erzurum, Turkey <sup>2</sup>Department of Horticulture, Faculty of Agriculture, Ataturk University, Erzurum, Turkey <sup>3</sup>Department of Biochemistry, Faculty of Medicine, Atatürk University, Erzurum, Turkey

AIM: Free oxygen radicals, lipid peroxidation, Helicobacter pylori, alcohol and non-steroidal antiinflammatory drugs contribute to the development of gastric ulcer. Alcohol-related stomach ulcer is the main disturbance of the gastrointestinal tract. We aimed to investigate the effects of Persimmon (Diospyros kaki L.) fruits with antioxidative effects against ethanol-induced gastric ulcer.

METHODS: 32 Wistar albino male rats weighing 250-300 gr were divided into 4 groups (n=8/group). Group 1: Control; a normal diet was applied; Group 2: Ulcer group; Group 3: Persimmon extract (4 ml/kg); Group 4: Persimmon extract (8 ml/kg). Persimmon extract was applied to rats by oral gavage for 10 Fruit samples were prepared days. with homogenizer. In 11th day, Group 2, Group 3 and Group 4 were applied 5 ml/kg of 99% absolute ethanol by oral gavage and after 90 minutes the animals were sacrificed and stomach tissues were collected. MDA (malondialdehyde), GSH (glutathione), SOD (superoxide dismutase) were investigated by biochemical methods. Data were analyzed using the One-way ANOVA test.

RESULTS: Increased MDA level in the ulcer group decreased in persimmon applied groups (p <0.05). Decreased SOD and GSH levels in the ulcer group increased in the persimmon applied groups. CONCLUSION: Persimmon extract has been shown to play a gastroprotective role against ethanol-induced gastric ulcer. Persimmon extract may be considered as a new potential natural method for gastric ulcer treatment.