

عنوان مقاله:

?Does Propylthiouracil Increase the Gentamicin-Induced Nephrotoxicity In Rat

محل انتشار:

مجله علوم پایه پزشکی ایران، دوره 16، شماره 11 (سال: 1392)

تعداد صفحات اصل مقاله: 6

نویسندگان:

Gholamreza Sepehri - *Neuroscience Research Center, Kerman University of Medical Sciences, Kerman, Iran*

Amin Derakhshanfar - *Department of Pathology, Faculty of Veterinary Medicine, Shahid Bahonar University of Kerman, Kerman, Iran*

Leila Saburi - *Faculty of Veterinary Medicine, Shahid Bahonar University of Kerman, Kerman, Iran*

خلاصه مقاله:

Objective(s): The aim of this study was to evaluate the effect of subacute administration of propylthiouracil (PTU) on gentamicin (GM)-induced nephrotoxicity in male rats. Materials and Methods: Male Wistar rats were divided into 4 experimental groups as follow: (1) Control group: isotonic saline (1 ml/kg, IP. for 18 d), (2) GM group: 100 mg/kg, IP for 8 d, (3) PTU group: PTU (10 mg/kg, IP for 18 d.) and (4) PTU + GM group: GM (100 mg/kg, IP. for 8d) and PTU (10 mg/kg, IP. for 18 d). Blood sample was taken from all animals and then the animals were sacrificed under light ether anesthesia on the day after the last injection. Sera were separated and were used to measure the urea and creatinine. Microscopic evaluation of renal injury was performed using a semiquantitative scale to evaluate the degree of tubular necrosis. Results: GM markedly increased serum urea and creatinine, as well as acute tubular necrosis (ATN), glomerular atrophy, hyaline casts formation in tubular lumen, interstitial nephritis and infiltration of inflammatory cells. PTU administration alone caused hyperemia and interstitial nephritis and infiltration of lymphocytic inflammatory cells in cortex but it had no marked effect on glomerular and tubular morphology and function. Co-administration of PTU and GM potentiates the GM-induced nephrotoxicity characterized by diffuse ATN; diffuse hyaline cast formation in lumen and infiltration of inflammatory cell in kidney tissues. Conclusion: Our data indicate that PTU potentiates GM-induced nephrotoxicity. The underlying mechanism(s) via which PTU potentiates GM renal toxicity remains to be elucidated.

کلمات کلیدی:

Gentamicin Nephrotoxicity Propylthiouracil Rat

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1298113>

