

Paricalcitol은 chlorhexidine로 유도된 복막섬유화를 감소시킨다.

영남대학교 의과대학 내과학교실 신장내과

최은우, 강석휘, 이수정, 황문주, 서준혁, 조규향, 박종원, 윤경우, 도준영

Paricalcitol Ameliorates the Chlorhexidine-induced Peritoneal Fibrosis in Rats

Eun Woo Choi, Seok Hui Kang, Su Jung Lee, Mun Ju Hwang, Joon Hyuk Seo
Kyu Hyang Cho, Jong Won Park, Kyung Woo Yoon, Jun Young Do

Division of Nephrology, Department of Internal Medicine, Yeungnam University Hospital

Background: The aim of this study was to evaluate the efficacy of paricalcitol on chlorhexidine gluconate-induced peritoneal fibrosis in rats.

Materials and Methods: Peritoneal fibrosis was induced by intraperitoneal injection of 0.1% chlorhexidine-gluconate (CG) dissolved in saline. Twenty-four male Sprague-Dawley rats weight 250-300 g were purchased from the Orient Co. Rats were divided into 3 groups. The C group received injection of normal saline. The CHX group received CG every other day for 4 weeks. The P group were received CG and cotreated with paricalcitol. At the end of 4 weeks, rats were sacrificed for morphometric and histologic analyses.

Results: Macroscopic findings showed that severe inflammatory changes of peritoneum and cocoon formation were confirmed in CHX group. The paricalcitol ameliorated these peritoneal changes. The thickness of the peritoneal membrane in CHX was significantly increased compared with that of the C group. Cotreatment with paricalcitol decreased peritoneal thickness. In addition, CG decreased the protein level of the epithelial cell marker in peritoneal tissue and increased the expression levels of the mesenchymal markers. Cotreatment with paricalcitol decreased these pathologic changes.

Conclusion: The present study showed that paricalcitol ameliorates the CG-induced peritoneal fibrosis in rats.

Key Words: 페리칼시톨, 복막섬유화, 클로르헥시딘

Paricalcitol, Peritoneal fibrosis, Chlorhexidine gluconate