

Tranilast는 복막투석 모델에서 복막섬유화를 예방한다

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Tranilast Prevents Epithelial to Mesenchymal Transition on Peritoneal Mesothelium in a Rat Model of Peritoneal Dialysis

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Background: The purpose of the present study was to examine the effectiveness of tranilast for the prevention of epithelial to mesenchymal transition (EMT) in peritoneal mesothelial cells.

Materials and Methods: Forty-two male SD rats weighing 200-250 g were purchased from the Orient Co. In the C group, the catheter was inserted but no dialysate was infused. The PD group was infused with a conventional 4.25% dialysis solution. The PD+TR group was infused with 4.25% dialysis solution and cotreated with tranilast.

Results: After 8 weeks of experimental peritoneal dialysis in rats, the thickness of the peritoneal membrane in the PD group was significantly increased compared with that of the C group. Cotreatment with tranilast decreased peritoneal thickness. In addition, deposition of collagen was higher in the PD group than in the C group. That was decreased by tranilast cotreatment. Expression of the epithelial cell marker was decreased and that of the mesenchymal cell markers was increased in the PD group. Whereas cotreatment with tranilast restored the expression of the epithelial cell marker and decreased the mesenchymal cell markers.

Conclusion: We suggest that tranilast may help improve peritoneal membrane characteristics during peritoneal dialysis.

Key Words: 복막섬유화, 트라닐라스트, 복막중피세포

Peritoneal fibrosis, Tranilast, Peritoneal mesothelial cell