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Dialysis

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SUPINE ESOPHAGEAL SPHINCTER PRESSURE ON ESOPHAGEAL MANOMETRY WAS SIGNIFICANTLY LOWER IN CAPD PATIENTS WITH GASTROESOPHAGEAL REFLUX DISEASE

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Background: Upper gastrointestinal(GI) symptoms such as nausea and vomiting are frequently observed in continuous ambulatory peritoneal dialysis (CAPD) patients.

Methods: We conducted esophageal manometry and 24-hour esophageal pH monitoring in 4 CAPD patients (Group I) who had upper GI symptoms and compared them with 9 patients (Group II) who did not.

Results: The mean age in Group I was 48.5 ± 13.7 years, and the male-to-female ratio was 1:3. One patient was diabetic. There were no significant differences in clinical and biochemical data between the two groups. In the results of esophageal manometry, supine lower esophageal sphincter pressure (LESP) at 2000 mL of infused dialysate was significantly lower in Group I than in Group II (23.2 ± 4.4 vs 31.2 ± 7.1 mmHg, $P < 0.05$), but supine LESPs at empty state and sitting LESPs were not different. Group I had a significantly higher total number of reflux episodes (89.0 ± 16.5 vs 26.5 ± 19.4 , $P < 0.05$), number of reflux episodes longer than 5 minutes (2.3 ± 2.6 vs 0.3 ± 0.5 , $P < 0.05$), total time of pH < 4.0 (75.5 ± 55.5 vs 11.0 ± 6.8 , $P < 0.05$), and total reflux score (19.7 ± 10.2 vs 4.2 ± 2.3 , $P < 0.05$) in 24-hour esophageal pH monitoring.

Conclusion: Supine esophageal sphincter pressure was significantly lower in CAPD patients with gastroesophageal reflux disease. CAPD patients with upper GI symptoms such as nausea, vomiting, and epigastric discomfort should be evaluated for gastroesophageal reflux disease with esophageal manometry.

Keywords: esophageal sphincter pressure