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**Effect of Intraperitoneal Immunoglobulin G in Patients with Refractory or Relapsing peritonitis**

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**Objectives :** In recent guidelines, it is recommended to remove the peritoneal dialysis (PD) catheter if there is no improvement in refractory and relapsing peritonitis after 5 days of appropriate antibiotics. A few studies have showed the efficacy of intraperitoneal immunoglobulin G (IPIG) in this condition. We analyzed the short and long term effects of IPIG administration on refractory and relapsing peritonitis in continuous ambulatory peritoneal dialysis (CAPD) patients

**Methods :** Fourteen CAPD patients (13 refractory, 1 relapsing) with an mean age of  $59.3 \pm 11.8$  years, with a mean CAPD duration of  $56.0 \pm 81.2$  months included in the study. The patients included had a diagnosis of either refractory or relapsing peritonitis unresponsive to appropriate antibiotic therapy. 0.5 g of Ig was added to every exchange bag qid as an adjunctive therapy to the culture based antibiotherapy for 7 days We evaluated whether PD effluent responded to treatment with IPIG with less than  $100/\mu\text{L}$  WBC and evaluated the long term effect

**Results :** Of the 14 patients, 8 patients (57%) responded to IPIG treatment. Recurrent episodes were analyzed 1 year before and after the occurrence of refractory or relapsing peritonitis using IPIG. Recurrent episodes decreased after using IPIG compared to before using IPIG, but the difference was not statistically significant ( $1.75 \pm 2.18$  episodes/patients vs  $1.25 \pm 1.2$  episodes/patients,  $p=0.586$ ). Of the 8 patients, 1one was converted to hemodialysis (HD) and one had the catheter removed due to treatment failure for recurrent peritonitis, and the remaining 6 patients maintained PD. On the other hand, 4 out of 6 patients who did not respond to IPIG were converted to HD by removing the PD catheter.

**Conclusions :** We conclude that IPIG treatment may be beneficial in the treatment of refractory or relapsing CAPD peritonitis possibly through restoring impaired host defense within peritoneal cavity. However, furthermore clinical studies are needed.