

Epidemiology of culture-negative peritonitis in Iranian patients on continuous ambulatory peritoneal dialysis.

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Source

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Abstract

INTRODUCTION:

Culture-negative peritonitis is a major challenge in the treatment of peritonitis in continuous ambulatory peritoneal dialysis (CAPD). This study aimed to evaluate the culture-negative peritonitis in patients from the Iranian CAPD Registry.

MATERIALS AND METHODS:

Data of 1472 patients from 26 CAPD centers were analysed. Peritonitis was defined as any clinical suspicion together with peritoneal leukocyte count of 100/mL and more.

RESULTS:

The patients had been on PD for a mean of 500 ± 402 days. There were a total of 660 episodes of peritonitis observed among 299 patients (peritonitis rate of 1 episode in 34.1 patient-months). Excluding patients with both negative and positive culture results, there were 391 episodes of peritonitis in 220 patients (174 culture-positive episodes in 97 patients and 217 culture-negative episodes in 123). The 1- to 4-year patient survival rates were 85%, 75%, 69%, and 59% for the patients with culture-positive peritonitis, and 92%, 78%, 73% and 63% for the patients with culture-negative peritonitis, respectively ($P = .34$). The technique survival rates were 90%, 57%, 42%, and 27% and 95%, 85%, 74%, and 40%, respectively ($P = .001$). On follow-up, there were higher rates of active PD patients, lower rates of PD dropouts, and higher rates of kidney transplantation in patients with culture-negative peritonitis compared to those with culture-positive peritonitis.

CONCLUSIONS:

In our patients, the prevalence of culture-negative peritonitis was high (55.9%). Patient survival with culture-negative peritonitis was comparable to those with culture-positive peritonitis and technique survival was higher among those with culture-negative peritonitis.