

The relationship of the follow-up peritoneal white cell count and the catheter outcome in patients with PD peritonitis

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Objectives

Peritonitis is a major cause of technique failure in patients on peritoneal dialysis. Catheter loss can be associated with a day 3 peritoneal dialysate white cell count > 1090/mm³ (Chow CJASN July 2006).

We wished to see whether the fate of the Tenckhoff catheter was similarly related to the day 3 white cell count in our patients.

Methods

We reviewed the records of peritoneal dialysis patients at our hospital between 2014 and 2018 inclusive who had had peritonitis. The data were extracted from e-Med and our hospital electronic patient records. Concordance of data were then cross-checked with departmental paper records. We determined the date of the follow-up white cell count and its value. We identified cases where the Tenckhoff catheter was removed because of the peritonitis.

Results

There were 182 episodes of peritonitis of which 49 led to catheter loss. In 11 of those cases of catheter loss a replacement catheter facilitated continuation of peritoneal dialysis without haemodialysis.

See Tables 1 and 2

Conclusions

The day 3 white cell count has an association with catheter outcome: 56% catheter loss with a higher count vs. 25% catheter loss for a lower count. This is not seen with white cell counts on other days.

The lack of data for 56 episodes of peritonitis limits this interpretation of the data.

We need to have more emphasis on ensuring a day 3 peritoneal white cell count allowing for weekends.

Reference

Predictive Value of Dialysate Cell Counts in Peritonitis Complicating Peritoneal Dialysis

Kai Ming Chow, Cheuk Chun Szeto, Kitty Kit-Ting Cheung, Chi Bon Leung, Sunny Sze-Ho Wong, Man Ching Law, Yiu Wing Ho and Philip Kam-Tao Li

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