

# CATHETER EXIT-SITE INFECTIONS IN PERITONEAL DIALYSIS: NON DIPHTERIA CORYNEBACTERIA EMERGENCE?

Ana Rita Martins; Ricardo Vizinho; Patricia Q Branco; Maria Augusta Gaspar; José Diogo Barata

Hospital Santa Cruz – Centro Hospitalar Lisboa Ocidental – Lisbon - Portugal



## Introduction and Objectives:

- Non-diphtheria corynebacteria have emerged as important pathogens.
- Although isolation of these organisms may represent contamination with skin flora, several species, including *amycolatum* and *jeikeium* clearly cause disease in humans.
- Certain species infect healthy hosts, while others predominantly attack immunocompromised individuals.

## Methods:

- 97 patients under regular peritoneal dialysis program since January 2012
- 1 Exit site infection/ 25,1 months in our unit
- 13 patients with peritoneal dialysis related *Corynebacterium* spp infection.

Age (years)	Gender (M/F)	Diabetes	Time on peritoneal dialysis (m)	Type of peritoneal dialysis (APD)	Type of swab	Medium	Cultural isolation
53 +/- 14,9	77%/33%	15%	27,4 +/- 16,4	54%	Bioplastlab®	BactAlert®	Vitek® (our lab does not provide antibiotic sensibility testing)

Table 1: Demographic characterization of the patients with *Corynebacterium* infection, type of swab and method of culture

## Results:

We identified 18 cases of *Corynebacterium* spp infections in 13 peritoneal dialysis patients

- 17 cases of exit site infection (two of wich complicated by tunnel infection)
- One case of peritonitis
- Two patients had relapsing exit site infection

Two or more pathogenic bacteria were found in 84% of the infections

- *Staphylococcus* spp was isolated in 80% of such co-infections (*Staph.aureus* in 63.4%, *ludgunensis* in 27,2%, *warneri* in 0,1%)

A previous exit site infection had occurred, on average 3,3 months, before the *Corynebacterium* infection

- The culprit agent was a *Staphylococcus* in 64% and an *E.coli* in 18% of such cases

We treated every *Corynebacterium* infection empirically and the co-infectious agent according to available sensibility testing. All patients were also treated with topic gentamycin.

The clinical outcome of the 13 patients was the following:

- One patient was transferred to hemodialysis
- Seven patients had to remove the peritoneal catheter
- Four patients who had their peritoneal catheter removed were briefly treated with hemodialysis
- Six of the 18 infections resulted in a hospital in-stay.

## Conclusions:

*Corynebacterium* spp exit site infection was a epidemic problema in our unit between Dezember 2011 until February 2013.

*Corynebacterium* spp exit site infection was resolved with ambiantal cleen interventions.

*Corynebacterium* spp peritoneal dialysis related infection was frequently isolated in association with a *Staphylococcus*.

We aim to underline *Corynebacterium* as an emergent pathogenic agent in this population.

## References:

- 1 - Relapsing peritonitis caused by *Corynebacterium amycolatum* in a patient undergoing continuous ambulatory peritoneal dialysis: A case report  
Meliha Caglia Sonmezer, Günay Tuncer Ertem, Meltem Arzu Yetkin, Eda Yıldız, Behiç Oral; *International journal of infection control* - Vol 9, No 1 (2013)
- 2 - Exit-site infections by non-diphtheria corynebacteria in CAPD: 2004 Sep-Oct in *Peritoneal dialysis international*
- 3 - ISPD Guidelines/Recomendations: Peritoneal Dialysis-Related Infections Recommendations: 2010 update  
Philip Kam-Tao Li, Cheuk Chun Szeto, Beth Piraino, Judith Bernardini, Ana E. Figueiredo, Amit Gupta, David W. Johnson, Ed J. Kuijper, Wai-Choong Lye, William Salzer, Franz Schaefer, and Dirk G. Struijk  
*Perit Dial Int* July/August 2010 30:393-423.

