

# Exit site infection in peritoneal dialysis patient: surgical conservative therapy is better ?

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## OBJECTIVES

Exit site infection (ESI) represent one of the major peritoneal dialysis (PD) complications and could lead to catheter removal. Early diagnosis is extremely important in reducing such complications. Surgical technique, postoperative protocols and care of the exit site (ES) represent key points for the prevention of ESI. The aim of this study was to evaluate the incidence of ESI as well as its outcome in patients during 16 years activity.

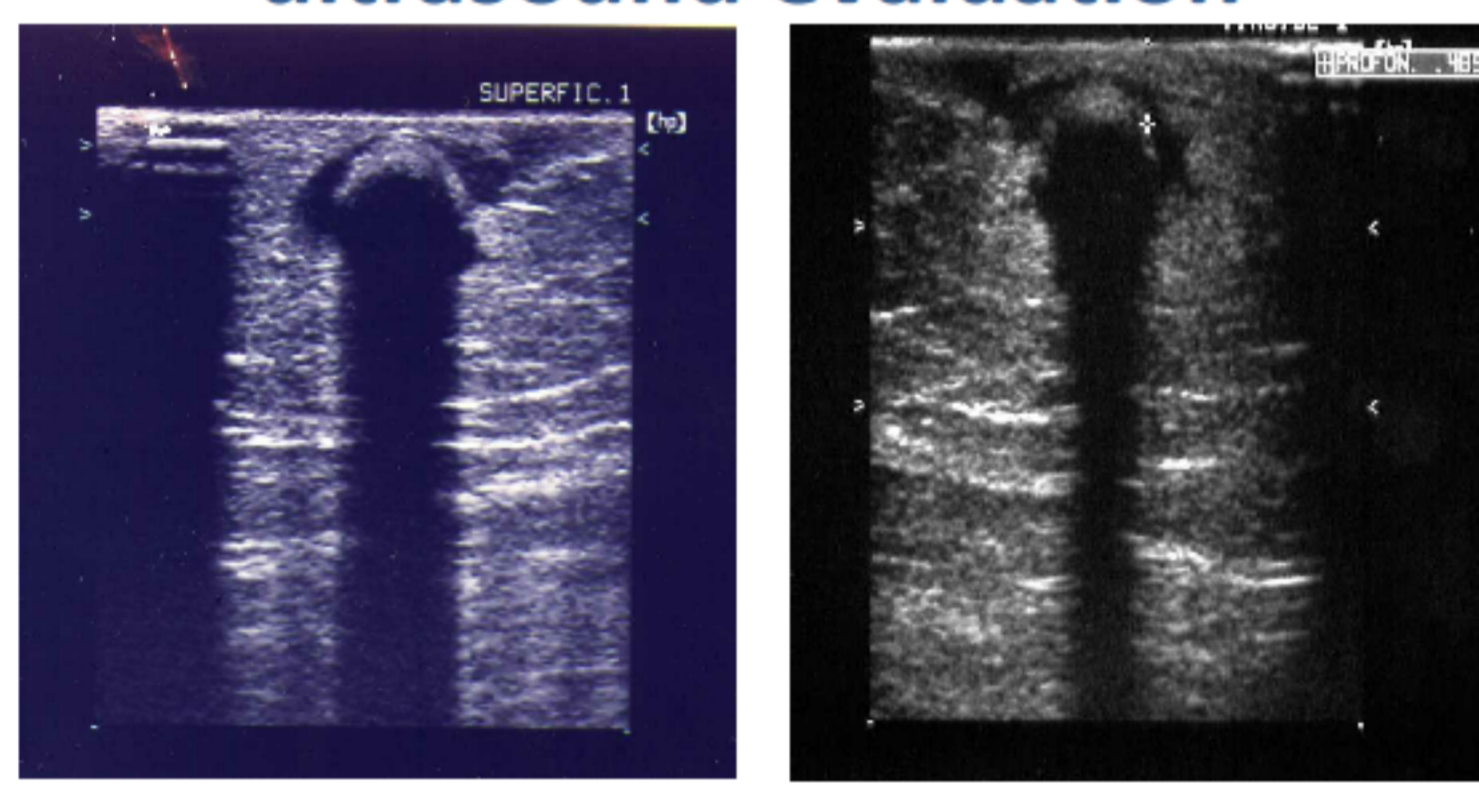
## METHODS

138 Tenckhoff catheters were implanted in 130 consecutive patients, 37 of these were female, 8 catheters were implanted in the same patients because of malfunction. The average age was 63,7 +/- 14 (range 25-88), 59 patients were on Continuous Ambulatory Peritoneal Dialysis (CAPD), 79 patients were on Automated PD (APD). All catheters were implanted by a standard surgical technique through the paramedian incision of the rectus muscle. Tenckhoff "Vicenza" catheter was used in all patients. Preoperative antibiotic prophylaxis (Cephazolin 1 gr. Im) was carried out. The break-in period lasted about 15 days. The mean duration on PD of the study patients was 24 months. Medical therapy for ESI was selected based on international guidelines and surgical therapy (cuff-shaving) was applied after ultrasound inspection of the subcutaneous tunnel. Patients in the study use Amuchine 10% and pH neutral soap for the cleaning of the ES, application of local therapy was not considered. A mean follow up of 12 months/catheter was applied.

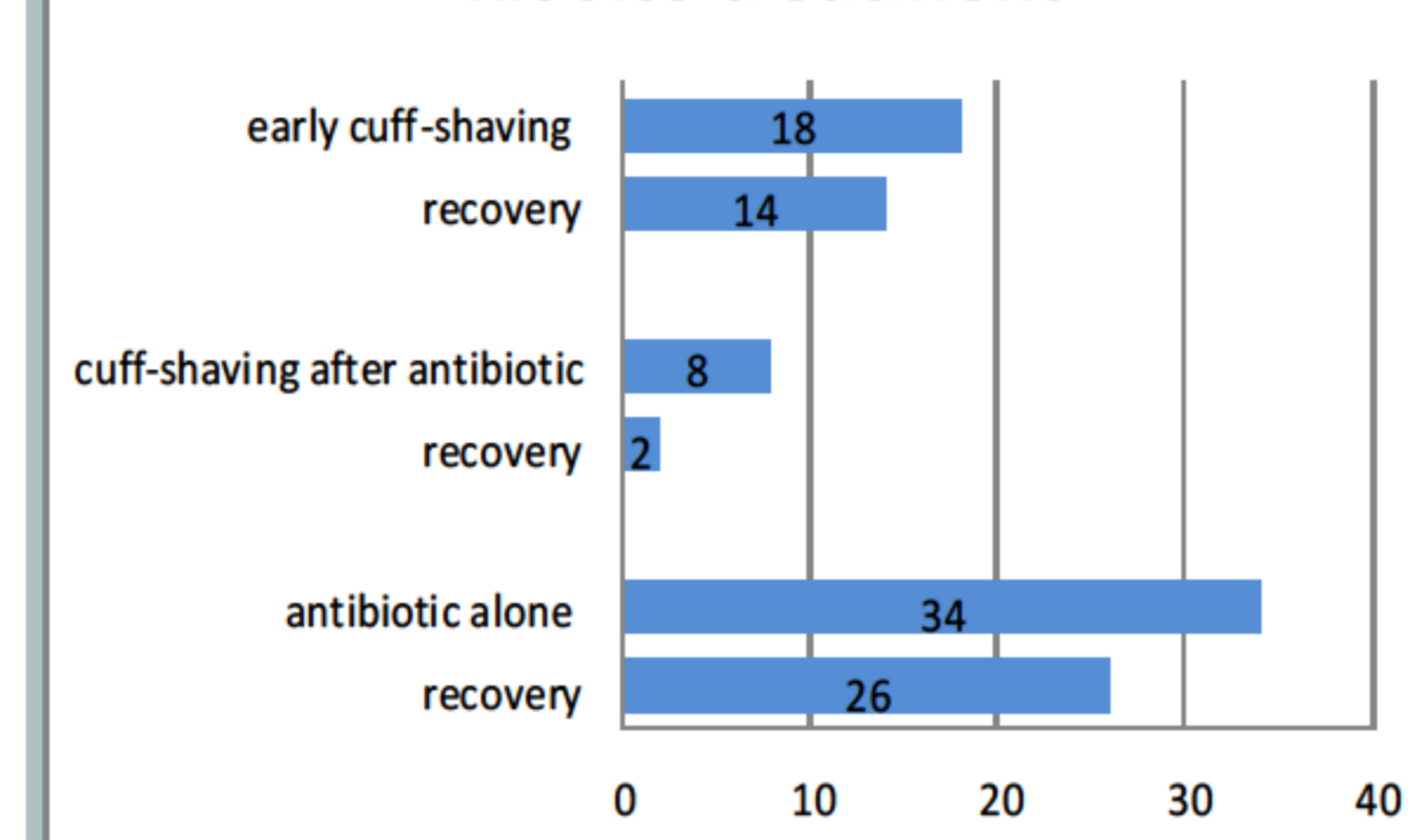
## RESULTS

We observed 52 ESI with a rate of 1 episode 67 patient/month. The incidence of ESI was 0.18 person-year. The leading causative agent for ESI was *Stafilococcus aureo* (50%), *Stafilococcus epidermidis* (16%), *Pseudomonas* (16%) and other (19%). 34 ESI were treated with antibiotic therapy with 26 resolutions (77%). 18 patients received cuff-shaving as the first therapy (after ultrasound evaluation) with 14 resolutions (78%). 8 cuff-shaving were performed after medical therapy failure with 2 resolutions (25%). In the case of infections resistant to parenteral antibiotic administration and to the cuff-shaving, catheters were removed and reimplanted (5 catheters) and 5 catheters were removed for the drop of the patients to emodialysis treatment.

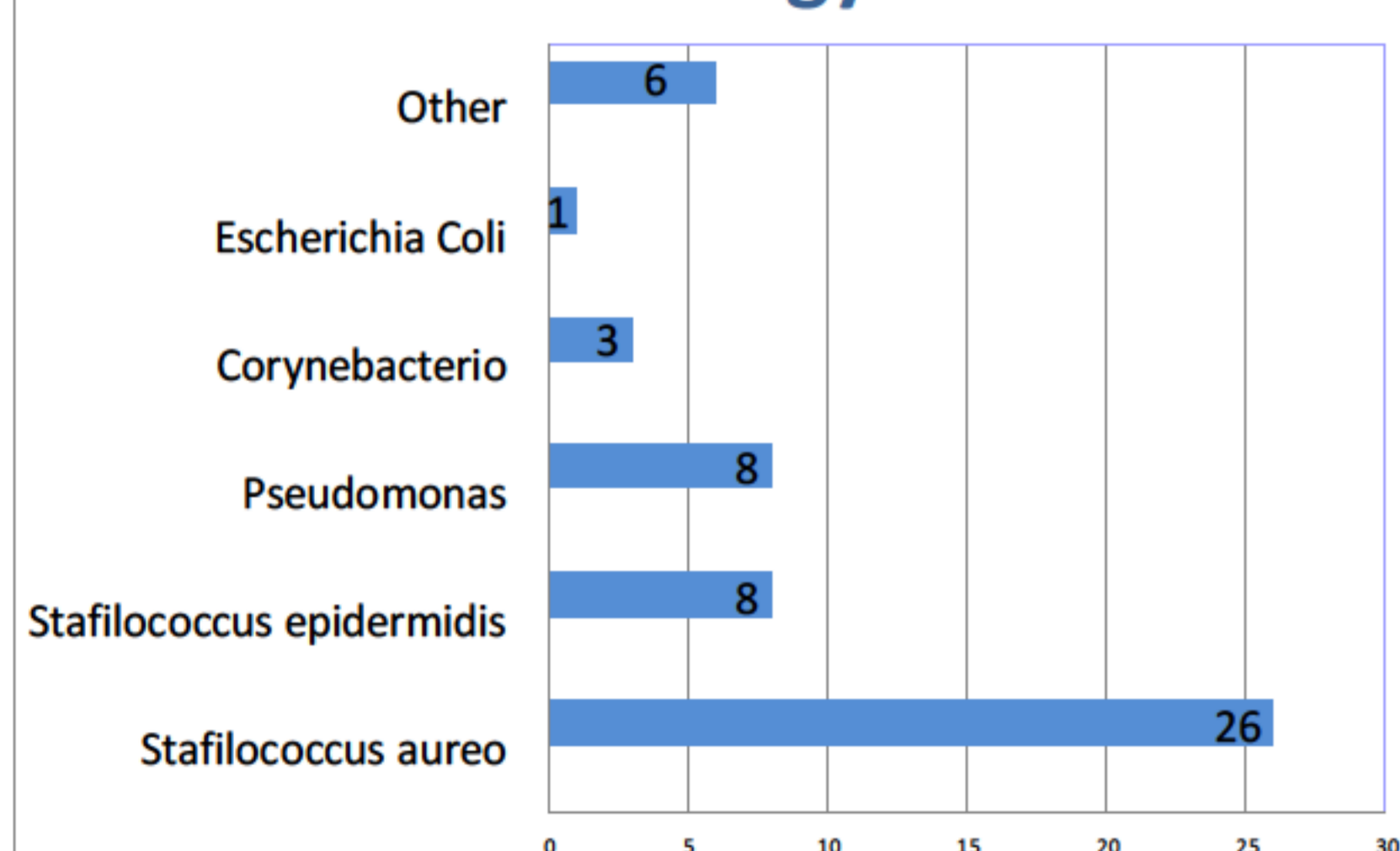
### Early Cuff-Shaving after ultrasound evaluation



### Exit Site treatment



### Etiology



### PERITONEAL CATHETER MANAGEMENT

- Perform the dressing on alternate days using sterile gauze and Amuchina 10%
- It is recommended to wash with the shower using a pH neutral soap. After every showers it is necessary to perform the dressing
- Do not use antibiotic or local therapy
- Protect the catheter with a small bag tied at the waist

## CONCLUSIONS

Medical therapy give us good results, conservative surgical therapy (cuff-shaving) offers better results only when used as first choice, after ultrasound evaluation, then after antibiotic failure (78% vs 25% resolutions). We observed a low incidence of catheter removal for infection (18%). Our study suggest that our cleaning exit-site protocol guarantees good results and does not require a local therapy. Cuff shaving, as the first therapy, need an ultrasound evaluation to obtain good results.

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