

CAN TAMOXIFEN PREVENT ENCAPSULATING SCLEROSING PERITONITIS IN PERITONEAL DIALYSIS?

A single center experience and literature review.

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INTRODUCTION

- Encapsulating sclerosing peritonitis (EPS) is a serious complication of peritoneal dialysis (PD).
- Tamoxifen is a selective estrogen receptor modulator that has antifibrotic properties and has been used in the treatment of various fibrotic syndromes, such as EPS.
- Some early interventions can prevent peritoneal inflammation: using biocompatible solutions, RAS blockage and avoiding peritonitis.
- In order to prevent EPS, our group included in a later phase, the administration of tamoxifen in high-risk patients.

AIM OF THE STUDY

The aim of this study was to evaluate the preventive use of tamoxifen in patients with high-risk for development of EPS.

METHODS AND POPULATION

- Retrospective cohort study;
- During 5 years (2011-2016) we treated 10 patients (5.3% of the total patients under PD) with high-risk for developing EPS;
- We defined patients with high risk of EPS as those with at least two of the following criteria:
 - PD vintage > 5 years;
 - Overexposure to glucose on PD solutions;
 - Acquired ultrafiltration failure;
 - Two or more peritonitis;
 - Hemodialysis access failure and transplant contraindications.
- All the patients were treated with 20 mg of tamoxifen daily for at least 1 year.

Table I: Baseline characteristics of the studied population.

Age, years	71.4 (40-78.2)
Gender, male	8 (80%)
PD vintage, months	46.1 (33.5-92.3)
Diabetes	2 (20%)
Automated PD	8 (80%)
Volume of solution per day, liters	10 (9.5-12.8)
Basal D/Pcr ratio	0.62 (0.51-0.68)

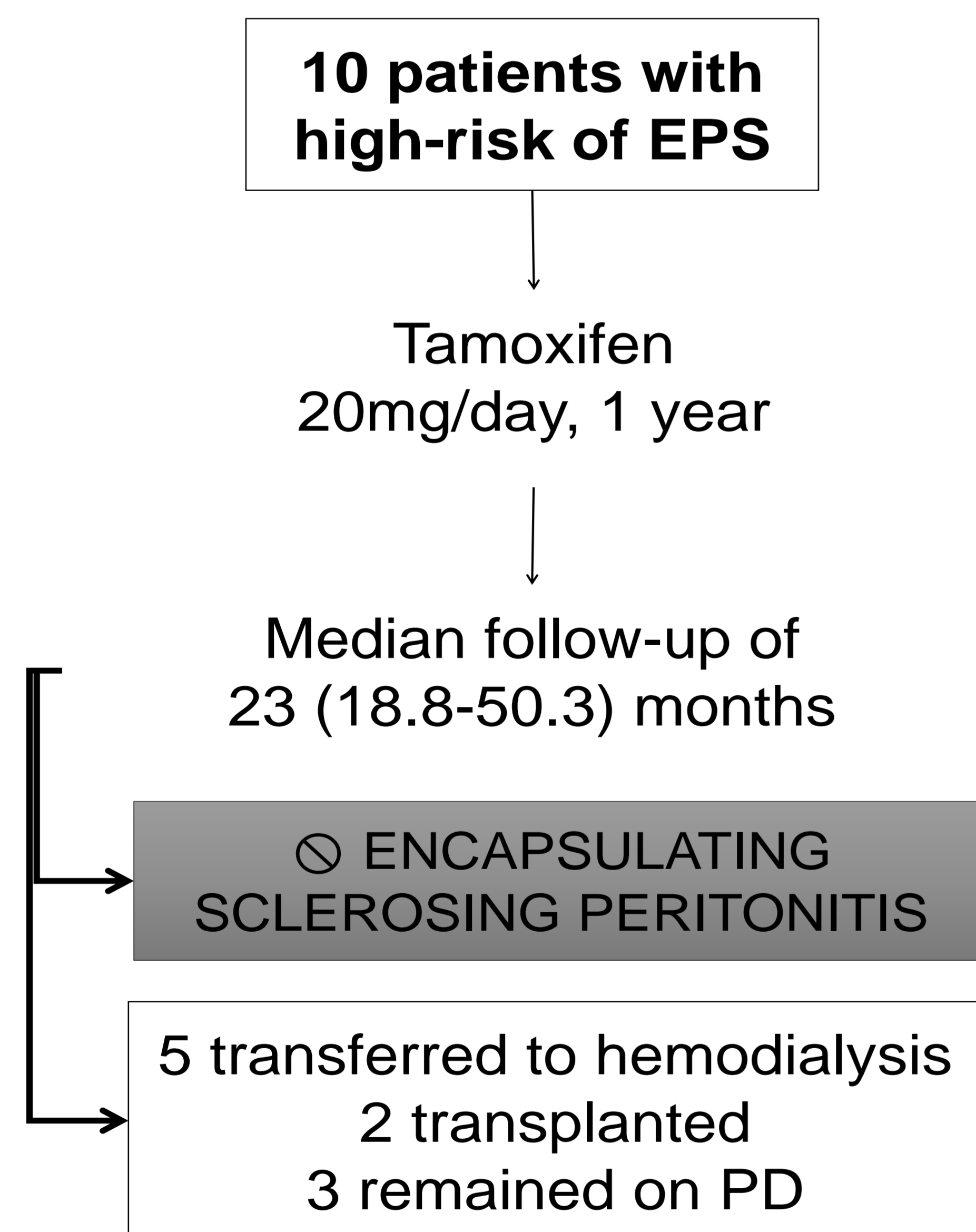
* Values are: median (interquartile range) or frequencies [n(%)]

RESULTS

Table II: Univariate analysis (Wilcoxon signed-rank test).

	Before Tamoxifen	After Tamoxifen	p
Ultrafiltration test, mL	450 (400-662)	550 (445-613)	ns
nPCR	0.85 (0.75-0.99)	0.74 (0.42-0.8)	ns
Kt/V	1.9 (1.7-2.2)	1.5 (0.9-1.7)	ns
D/Pcr ratio	0.64 (0.55-0.69)	0.62 (0.52-0.67)	ns
Dialysate CA-125 concentration, mg/dL	22.7 (7.4-31.6)	16.7 (5.1-27.3)	ns

* Values are: median(interquartile range)



CONCLUSIONS

- After a follow-up of 23 months no patient with high-risk for EPS treated with tamoxifen developed EPS.
- Our results may open the reflection about the potential benefit of using preemptive tamoxifen in patients with high-risk of EPS, namely for those to whom PD is the only renal replacement therapy available.
- The few reports about the use of tamoxifen in the prevention of EPS also found optimistic results.
- This question should be studied in prospective, randomized studies with longer follow-up periods

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