

INTRODUCTION

Pelvic lymphadenectomy is a therapeutic and diagnostic manipulation that provides evaluation of lymph node involvement and cancer staging. Lymphocele is a common postoperative complication in patients after radical prostatectomy and pelvic lymphadenectomy.

OBJECTIVE

The aim of this study was to assess the frequency of lymphocele in the follow-up period after da Vinci radical prostatectomy and develop effective lymphogenic complications prevention strategies.

MATERIALS AND METHODS

It was a prospective randomized single-center trial conducted in S.I. Spasokukotsky City Clinical Hospital from September 1 to December 1, 2022. The study involved 79 patients with prostate cancer (cT1-3N0M0) who underwent robot-assisted radical prostatectomy with pelvic lymphadenectomy and were randomized in three treatment groups:

1. Patients with free peritoneal flap fixed to the pubic bone;
2. Patients who received "Lymphoblock" during the surgery;
3. Control group.

RESULTS

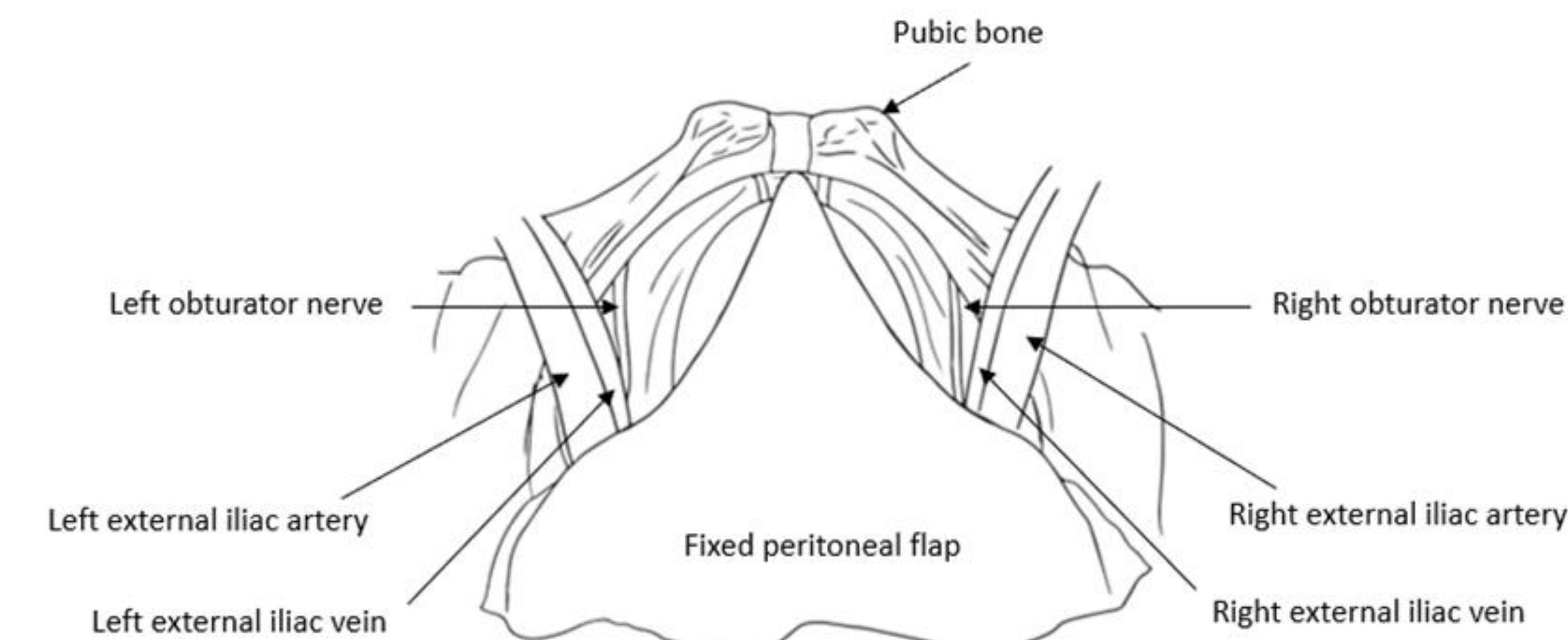
In total, 79 patients included in the study. The median follow-up was 90 d. No significant differences in clinical and pathological parameters were observed between the groups. The patients were divided into 3 groups: group 1 - fixation group (n=26), group 2 - «Lymphoblock» (n=26); group 3 – control group (n - 27). In postoperative period lymphocele was diagnosed in 8 (10.1%) patients: group 1 - 2 (2.5%) patients, group 2 - 1 (1.3%), group 3 - 5 (6.3%). Among groups 1 and 2 lymphocele had no clinical manifestation. Symptomatic lymphocele was diagnosed in 2 patients (2.5%) in the control group.

CONCLUSIONS

The surgical technique of a free peritoneal flap fixation to the pubic bone as well as usage of the «Lymphoblock» during robot-assisted radical prostatectomy with pelvic lymphadenectomy may reduce the incidence of lymphocele.

Group 1

Free peritoneal flap fixed to the pubic bone



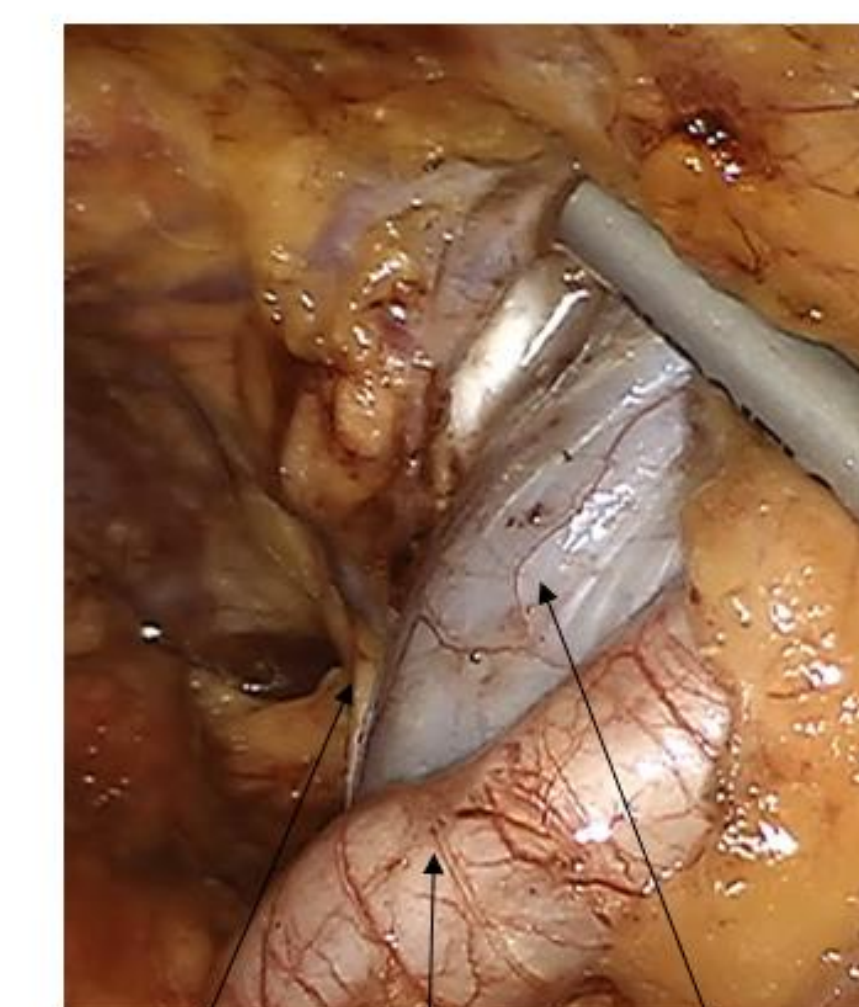
Group 2

After ePLND



Right obturator nerve
Right external iliac artery
Right external iliac vein

Using the "Lymphoblock"



Right obturator nerve
Right external iliac artery
Right external iliac vein

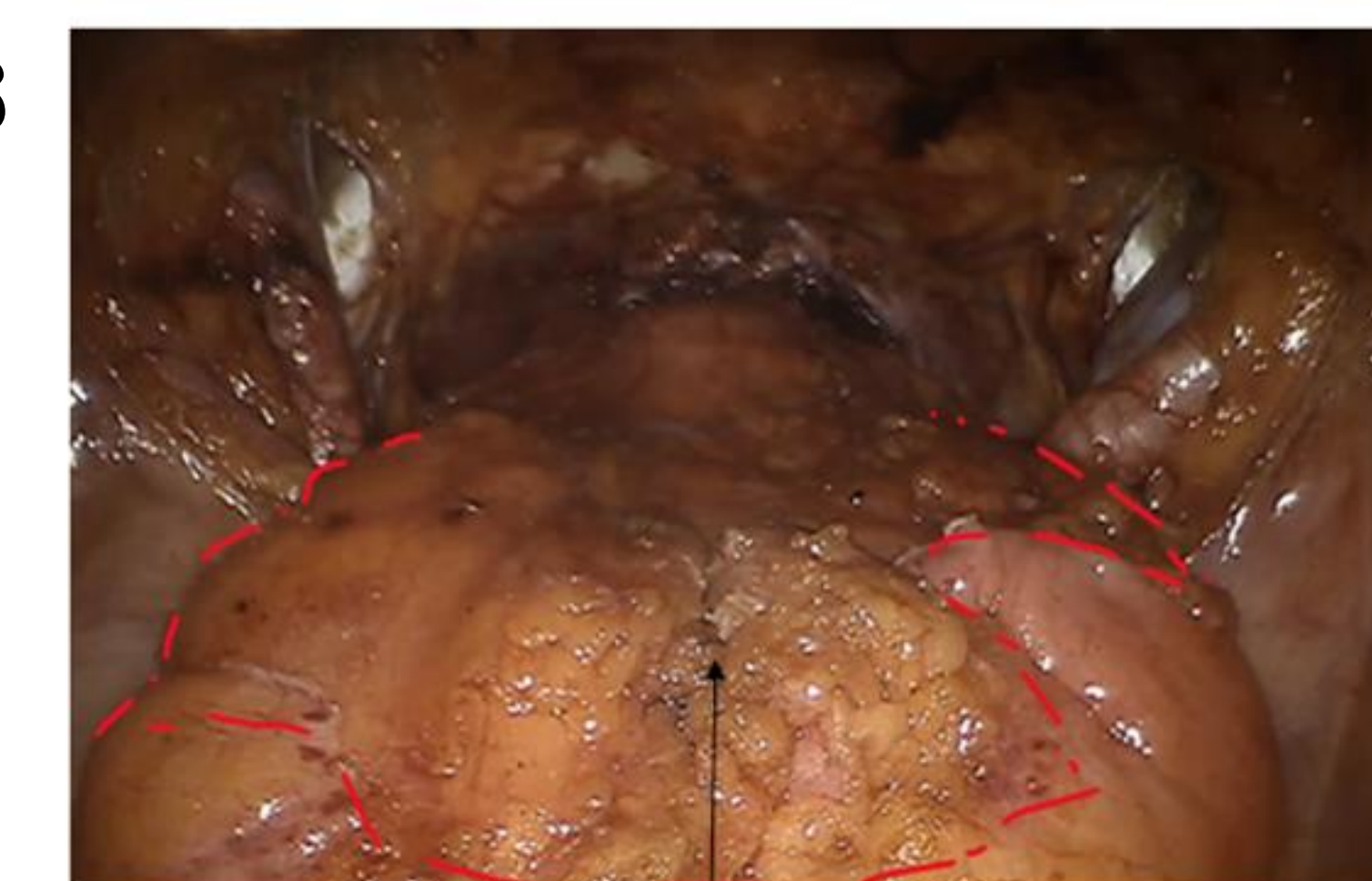
After ePLND and injection of "Lymphoblock"



Right obturator nerve
Right external iliac artery
Right external iliac vein

	Total cohort	Fixation group (n=26)	«Lymphoblock» group (n=26)	Control group (n - 27)	P value
Total incidence, n (%)	8 (10.1)	2 (2.5)	1 (1.3)	5 (6.3)	0.069
Asymptomatic lymphocele, n (%)	6 (7.6)	2 (2.5)	1 (1.3)	3 (3.8)	0.240
Symptomatic lymphocele, n (%)	2 (2.5)	0 (0.0)	0 (0.0)	2 (2.5)	0.413

Group 3



The free peritoneal flap without fixation to the pubic bone after RARP with ePLND

