INTRODUCTION: Wound drainage after radical prostatectomy is used to reduce postoperative hematomas and lymphoceles and to drain any leakage at the vesicourethral anastomosis. We evaluated two different suction-drainage systems regarding their efficacy. MATERIAL AND METHOD: Fifty-seven patients with radical retropubic prostatectomy and pelvic lymphadenectomy were prospectively randomized. Two drains were placed bilaterally, using the Ulmer drain (16, F, Unoplast A/S, Maersk Medical) with suction. Patients with Ulmer drain were randomized to removal with and without prior shortening of the drain. The third system was the Blake silicon drain with J-VAC system (19F, Ethicon) with continuous suction. RESULTS: Of the 57 patients, 19 were treated by J-VAC drainage (J-VAC), 19 received the Ulmer drain with drain shortening (Ulmer-with) prior to removal and 19 received the Ulmer drain without any drain shortening (Ulmer-without). Total drainage volume (mean) was statistically significantly different (p<0.001) with 760 cc for J-VAC, 309 cc for Ulmer-without and 234 cc for Ulmer-with. Ultrasonography demonstrated 11 lymphoceles, with 5 occurring with J-VAC, 3 with Ulmer-with and 3 with Ulmer-without. These differences did not reach statistical significance (p = 0.67). Intervention was needed in 3 of the 11 patients with lymphoceles (2 with...
J-VAC, 1 with Ulmer-without). The mean drainage time was 3.8 days for J-VAC, 2.9 days for Ulmer-with and 2.5 days for Ulmer-without, which was statistically significant different (p = 0.005).

CONCLUSIONS: Perioperative wound drainage after radical prostatectomy with pelvic lymphadenectomy is useful to reduce perioperative complications. Different wound drainage systems demonstrate different efficacy regarding drainage volume, drainage duration and lymphocele formation. Our data are in favor of the Ulmer drain system with shortening of the drain prior to removal.