

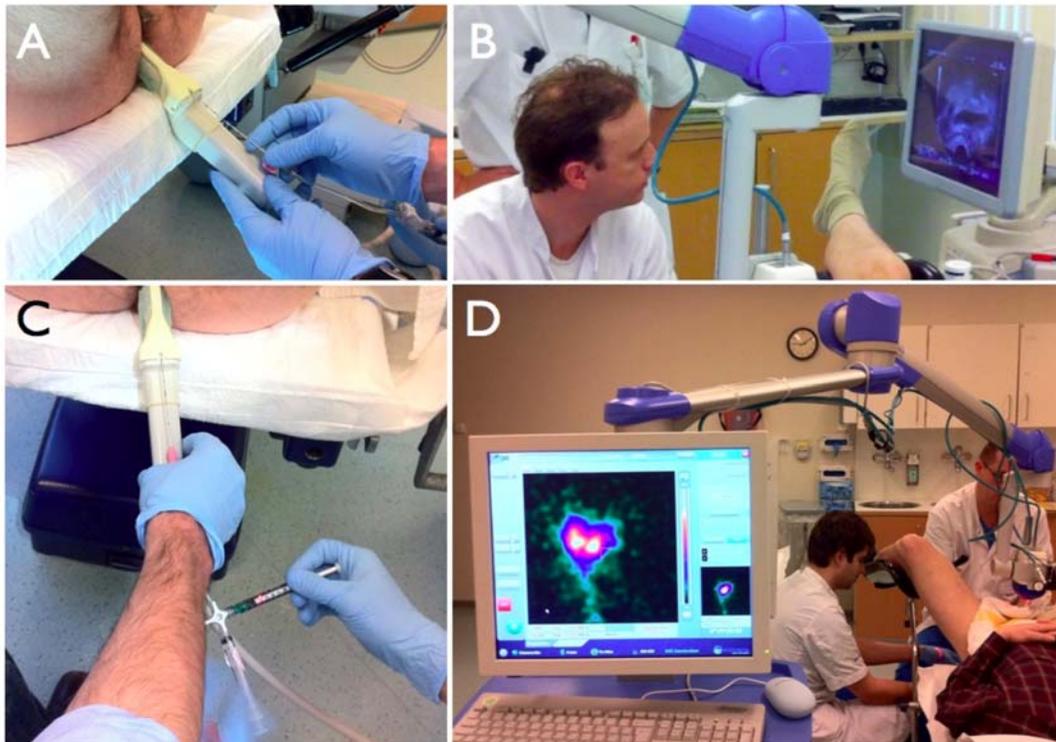
Patient characteristics and inclusion criteria

Patients with prostate carcinoma of intermediate prognosis scheduled for robot-assisted laparoscopic prostatectomy (RALP) and retroperitoneal lymph node dissection (RPLND) were included. Inclusion criteria were the presence of one or more of the following characteristics: clinical stage > T2b, prostate serum antigen level > 10.0 ng/ml, or Gleason sum score > 6. Supplemental Table 1 shows the complete patient characteristics.

Supplemental Table 1. Patient characteristics

	Age (yrs)	PSA (ng/ml)	cT pT	cN pN	cM	cG pG	cG1 pG1	cG2 pG2
1	60	41	cT2b pT3a	cN0 pN0	cMx	7 7	3 3	4 4
2	64	78	cT2c pT2c	cN0 pN0	cMx	7 6	3 3	4 3
3	67	46	cT2b pT3a	cN0 pN0	cMx	7 8	3 3	4 5
4	63	26	cT2b pT2c	cN0 pN0	cM0	7 9	3 4	4 5
5	50	40	cT2b pT2c	cNx pN0	cMx	6 7	3 4	3 3
6	74	47	cT2a pT3a	cN0 pN0	cM0	7 7	3 3	4 4
7	63	40	cT2b pT3a	cN0 pN1	cM0	8 10	5 5	3 5
8	62	77	cT2c pT3a	cN0 pN0	cM0	6 6	3 3	3 3
9	63	35	cT2c pT2c	cN0 pN0	cM0	7 7	3 3	4 4
10	62	23	cT2c pT2c	cN0 pN0	cMx	7 7	3 3	4 3
11	63	27	cT2b pT3b	cN0 pN0	cM0	8 10	5 5	3 5
12	62	27	cT2a pT2c	cNx pN0	cM0	6 6	3 3	3 3
13	63	35	cT3c pT2c	cN0 pN0	cM0	7 7	3 3	4 4
14	67	107	cT2a pT2b	cN0 pN0	cM0	8 9	5 4	3 5
15	61	37	cT3b pT3c	cN0 pN1	cM0	6 7	3 3	3 4
16	62	22	cT2c pT2c	cN0 pN0	cMx	7 7	3 3	4 4
17	56	39	cT2b pT2c	cNx pN0	cMx	7 7	3 3	3 4
18	65	42	cT3a pT2c	cN0 pN0	cM0	7 7	3 3	4 4
19	49	19	cT3a pT2c	cN0 pN0	cM0	6 6	3 3	3 3

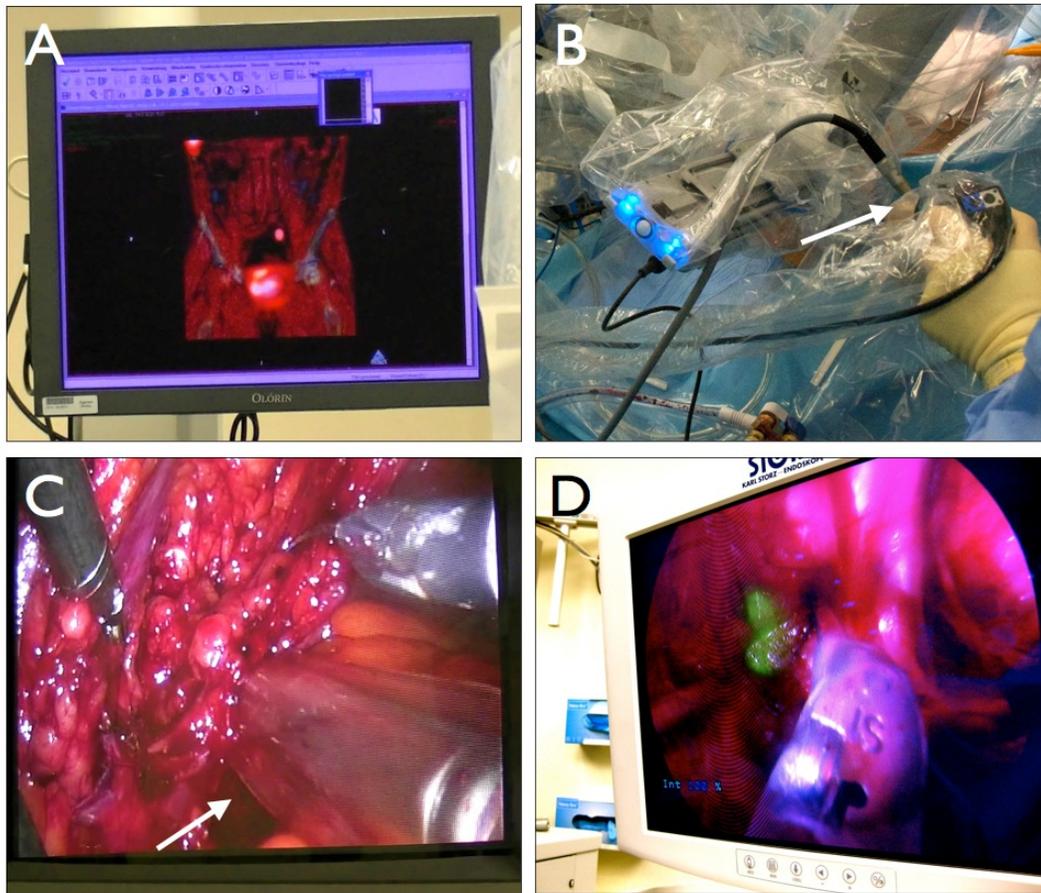
PSA = prostate-specific antigen (preoperatively determined);
G = Gleason sum score; c = clinical values; p = pathologic values;
T = tumor status; N = nodal status; M = distant metastases.



SUPPLEMENTAL FIGURE 1. **Intraprostatic injection procedure.** (A, B) Placement of the needle was conducted guided by ultrasound. (C) Hereafter, ICG-^{99m}Tc-nanocolloid was injected into the prostate. (D) A portable gamma was used to confirm adequate concentration of the tracer in the prostate using its radioactive ^{99m}Tc label.

Evaluation of injection efficacy using gamma camera imaging

Immediately after injection a scan was made using a portable gamma-camera to evaluate possible loss of tracer during the injection, e.g. into the bladder or the bloodstream. In patient numbers 7 and 14 an upcoming signal in the bladder could be seen. Loss of tracer could also be evaluated using the SPECT/CT images, which visualize loss of tracer via the bloodstream; in six patients (patient numbers 6, 9, 12, 13, 15 and 16) a signal in the liver could be detected at 15 minutes post injection. As in only one patient this resulted in non-visualization of the SLN (patient number 6), this loss of tracer does not seem to be of great influence on tracer drainage. The height of the signal in the SLN seems not to be influenced by the loss of tracer during the injection as the amount of counts/cm² detected did not differ significantly between patients wherein loss of tracer to the bladder or liver was seen (see above) and patients wherein no loss of tracer was observed.



SUPPLEMENTAL FIGURE 2. **Robot assisted intraoperative SN biopsy.** (A) The SPECT/CT image was acquired to preoperatively determine the exact location of the SN and is displayed in the operation room. (B) During the surgical procedure, a gamma probe and fluorescence laparoscope (arrow) were inserted through one of the access ports. (C) The acoustic signal produced by the gamma probe (arrow) was used to roughly guide the surgeon towards the location of the SN. (D) The SNs (depicted in green) were visualized using the fluorescence laparoscope.

Tumor presence in prostate samples

Tumor presence was determined during pathologic analysis of the embedded prostate sections. In all patients tumor was found in the third quadrant (Q3; Scheme 1b, Supplemental Table 1). In 16 (of 19) patients tumor was also present in Q4. In three prostate samples tumor was present in Q1 or Q2 next to presence of tumor in Q3 and/or Q4 and in three patients tumor was present in all quadrants.

Supplemental Table 2. Tumor presence

Patient nr	Q1	Q2	Q3	Q4
1			X	
2			X	X
3	X	X	X	X
4			X	X
5	X		X	
6	X		X	X
7			X	X
8		X	X	X
9	X	X	X	X
10	X		X	X
11	X	X	X	X
12			X	X
13			X	X
14			X	
15			X	X
16			X	X
17	X	X	X	X
18			X	X
19			X	X

X= presence of tumor. Q1-4 depict the different quadrants in the prostate.