Introduction & Objectives: Therapeutic options after failure of radical prostatectomy are limited. Mostly unsatisfying results are combined with severe side effects.

Material & Methods: Between 9/2001 and 10/2010, 196 prostate cryoablation procedures were performed; 31/196 for local recurrence after radical prostatectomy.

Mandatory criteria for cryoablation of local recurrence:
1. Rising PSA after radical prostatectomy
2. Visibility in transrectal ultrasound
3. Proven local cancer by histology
4. Negative metastatic work up

Pts. were classified as "favourable" if they had PSA <10ng/ml, Gleason <7, Tumour stage < T3 (n=5); "unfavourable" if they did not meet all 3 of the stated parameters (n=8). 18 patients were failures after radical prostatectomy and radiation therapy and therefore not classified.

Median PSA 2.8 ng/ml and median Gleason score 7 (5-10).

From 2 to 15 17-G, cryoneedles were percutaneously placed in the prostate under transrectal ultrasound guidance. 2 cryoneedles and a thermo sensor were placed in the area between the rectal wall and Denonvillier's fascia for temperature monitoring and active thawing. During the freezing process when rectal temperature was below 20°C, rectal warming was activated simultaneously; Median treatment time 105 min.

Median follow up 48 M.

Results: 1/3 of the patients were incontinent preop as well as 1 year postop.
No fistula or other SAE occurred. 5 patients died, 1 for unknown reasons 2 for another cancer, two to PCA. 9 patients are at proven progression. 2 peaks of time for progression (3 months and 2 years) seem to indicate progression either due to occult metastasis at the time of treatment or local progression.

Conclusions: Within strict criteria 3rd generation cryoablation of local recurrence after radical prostatectomy is a local therapy option. Although most of the pts. were at high risk for progression, the results are encouraging, giving the patients longer progression or symptom free survival.