

## An evaluation of side effects after gold markers (Gold Anchor™) implantation to prostate gland in patients with prostate cancer

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### Aim:

The aim of the study is an evaluation of side effects after implantation of the gold markers (Gold Anchor™) to prostate gland in patients irradiated due to the prostate cancer.

### Material and method:

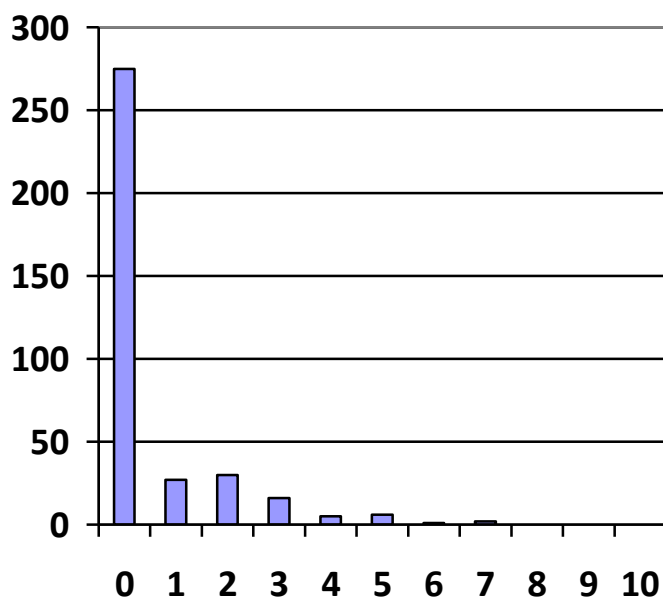
Since October 2009 to December 2010 362 patients with prostate cancer were qualified to radical radiotherapy with golden marker implantation. The purpose of the marker implantation is an opportunity to conduct an image guided radiotherapy (IGRT). The antibiotics and laxatives were prescribed to avoid an infection after implantation. The implantation was conducted transrectal via under ultrasonography guidance without local anesthesia or oral analgesics. The patients were aged 50 to 85 years (mean 68). The questionnaires were used to estimate a toxicity of the procedure 1-3 weeks after implantation.

An assessment includes:

- Intensity of a pain during implantation in 11 points scale (0 - no pain, 10 - the biggest imaginable pain).
- Bleeding after implantation (rectal or urinary tract bleeding)
- Symptoms of an inflammation (fever, polyuria, prostate pain, antibiotics and anti-inflammatory treatment)
- Another side effects

### Results:

There weren't any pain disorders during implantation in 275 (76%) patients. The mean value of pain intensity was 0,57 (median 0) The percentage distribution of pain intensity is presented in table below.



Pain intensity	Number of the patients
0	275 (75,9%)
1	27 (7,4%)
2	30 (8,3%)
3	16 (4,4%)
4	5 (1,4%)
5	6 (1,7%)
6	1 (0,3%)
7	2 (0,6%)
8	0
9	0
10	0

Rectal bleeding after implantation was observed in 10 (2,8%) patients, haematuria in 12 (3,3%) patients, prostate pain in 6 (1,7%) patients, fever in 4 (1,1%) patients and polyuria in 21 (5,8%) patients. In some patients polyuria was observed before implantation. Testicle inflammation was observed in one patient. The 8 patients were treated with antibiotics and anti-inflammatory drugs.

### Conclusions.

The Gold Anchors implantation is small invasive and safe method. The risk of side effects appearance is low.

*Key words: prostate, gold marker*