



# Transperineal I-125 Implants For Prostate Cancer



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## Background

The planning target volume for early prostate cancer is the gland only. Therefore, I-125 implants are the ultimate conformal radiotherapy.

## Aim of Study

Evaluation of the efficacy and toxicity of transperineal I-125 implants in patients with localized prostate cancer

## Patients' Characteristics

•Period:	12/2000 - 01/ 2006
•Number Pts:	120
•Age, Median:	69 years
•PSA, Median:	7.0 ng/ml (range 2-18)
•Gleason Score (#pts):	4 & 5 (10), 6 (104), 7 (6)
•Stage (#pts):	T1C (61), T2A (54), T2B (5)
•Prostate Vol. Median:	35 ml (range 14-82)

	Urine Flow	# Total Cores	# Positive Cores	% Core with tumor	# Seeds	# Needles
No. Pts	88	116	117	115	119	118
Median	15.4	7	2	19.8	84	28
Minimum	5.7	4	1	1	42	15
Maximum	37	15	10	90	117	30

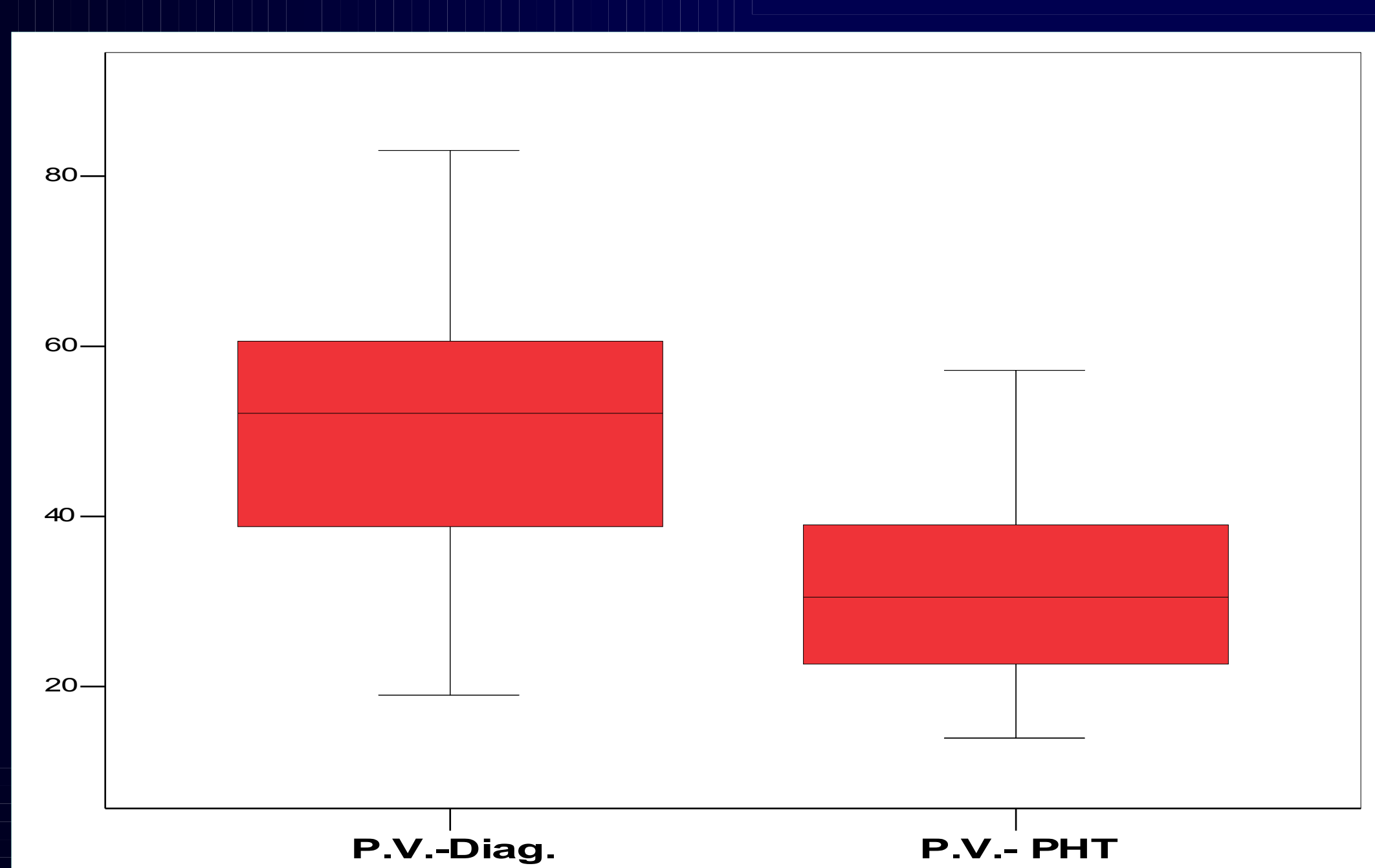
## Treatment Type

- I-125 Implant Only: 63 pts (52%)
- HT & I-125 Implant: 57 pts (48%)
- HT consisted of 2 injections of LHRHAA in attempt to reduce prostate gland volume below 50 ml.

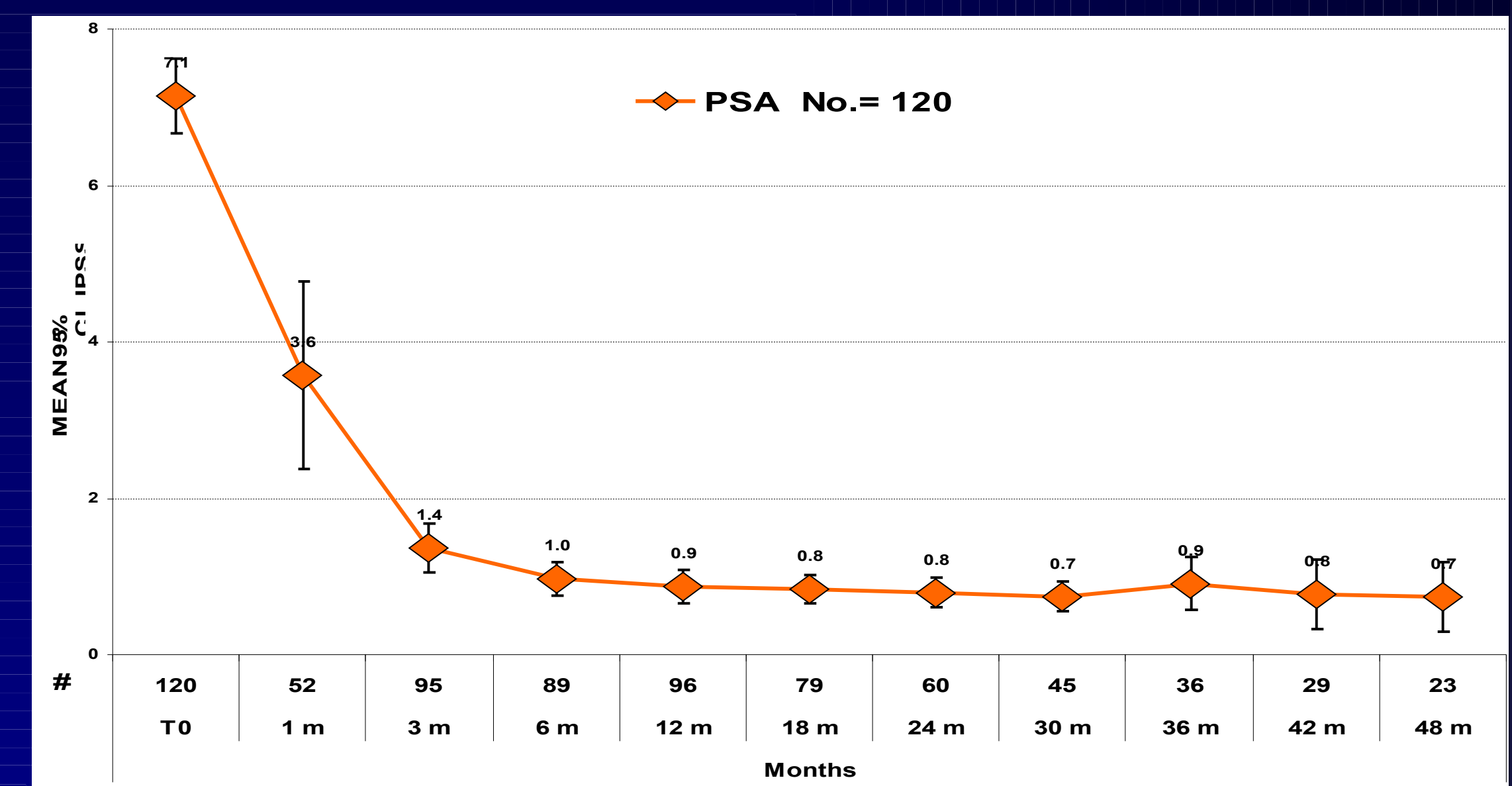
## Results:

**Median FU 26.8 months**

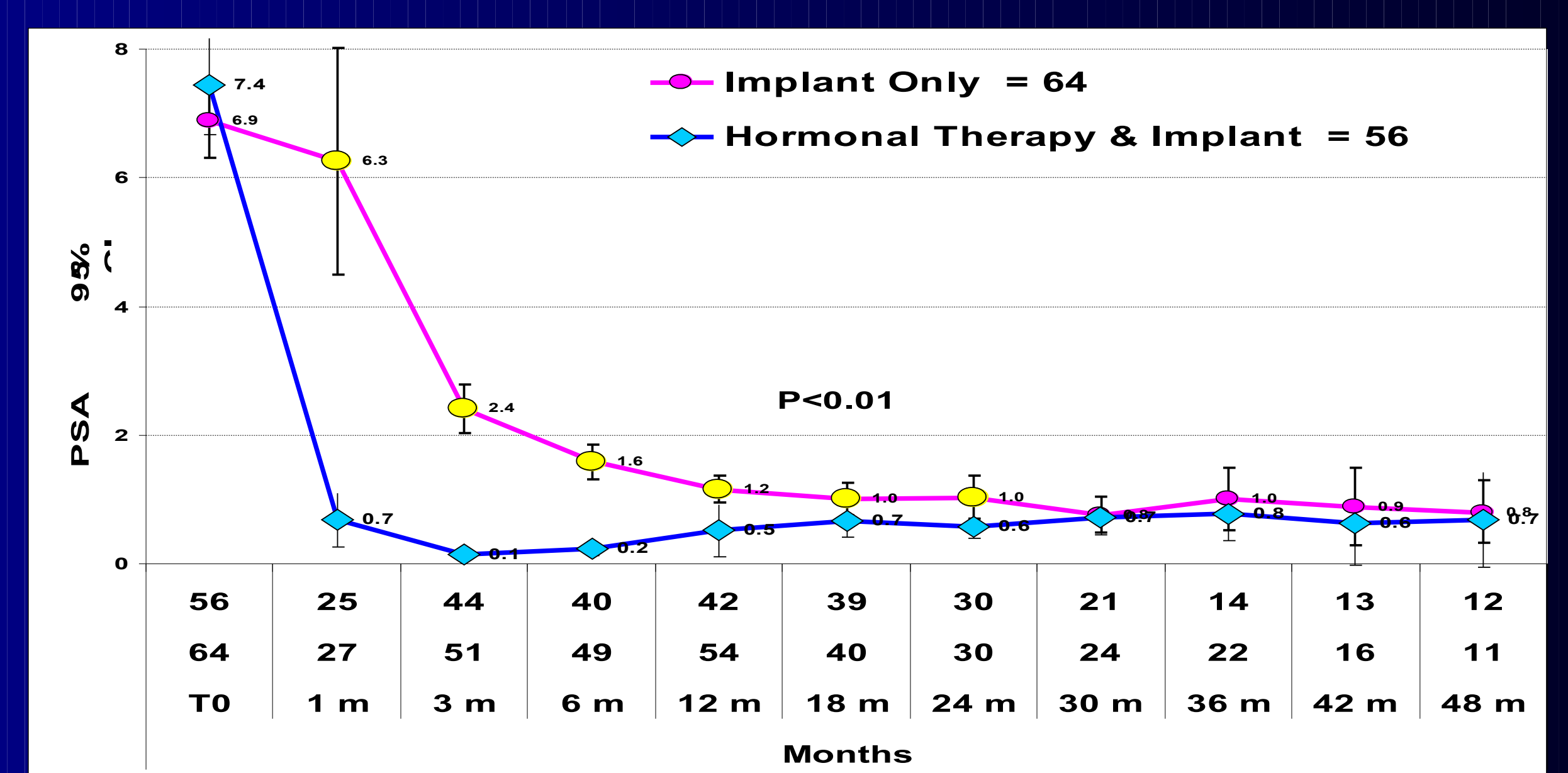
## Prostate Volume Reduction by HT



## Pre & Post Implant PSA (ng/ml)



## Pre & Post Implant PSA (ng/ml) By Treatment Type



❖Tumor stage, pre implant PSA & Gleason score did not influence post implant PSA

## Last Status:

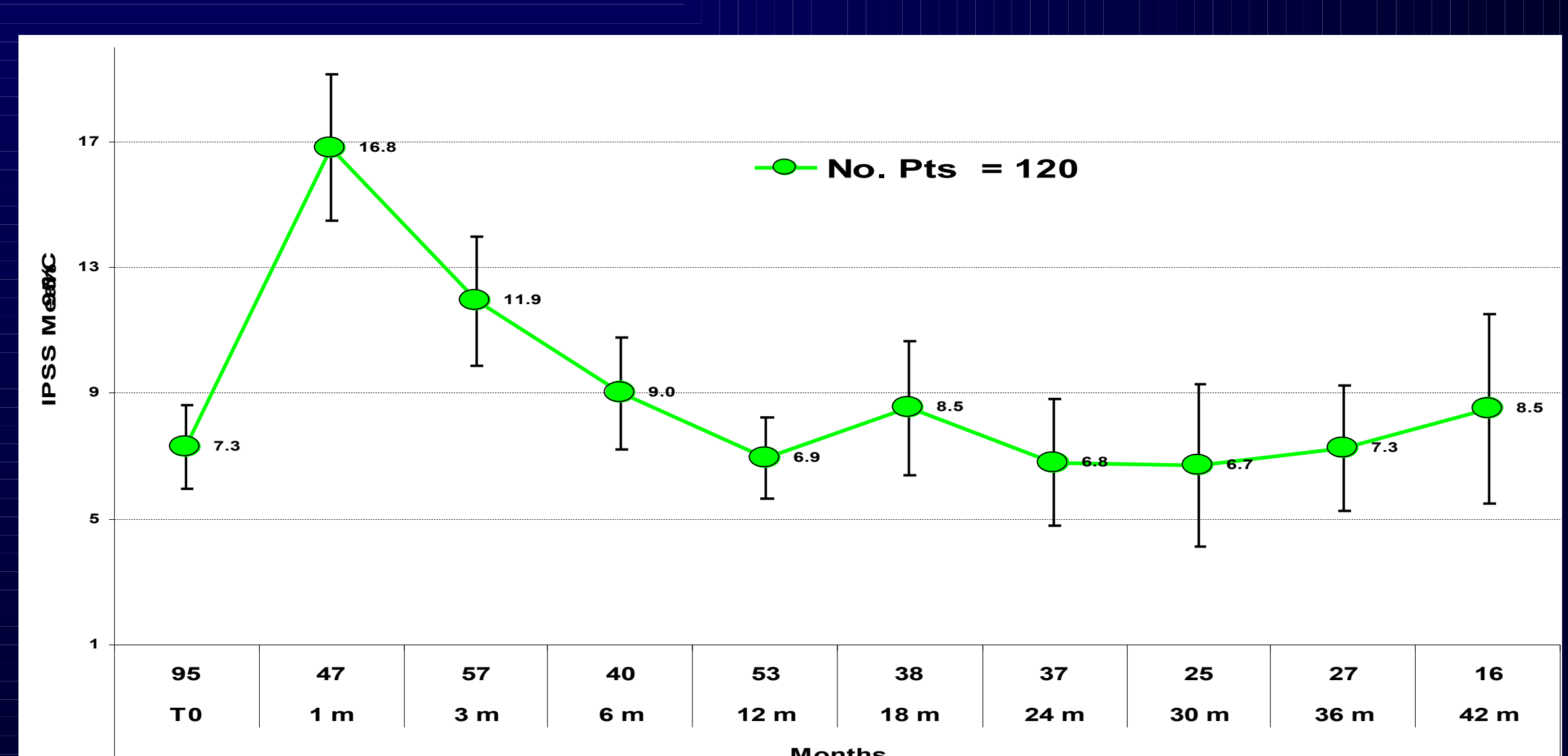
Pts: No. (%)

- # Pts alive & without HT: 107 (89)
- # Pts alive & with HT: 10 (8.5)
- # Pts with clinical failure: 0
- # Pts died because other dis. 3 (2.5)

## Toxicity

Toxicity	No. (%)
• Post-implant fever	2 pts (1.5)
• Acute urinary retention:	8 pts (15%)
• Post-implant TUR-P	1 patient
• IPSS score at 3 months, median:	12
• Rectal toxicity:	0
• Pulmonary seeds embolism:	0
• Urethra stricture:	0

## Pre & Post Implant IPSS



## Conclusion

**Transperineal I-125 implants are an effective treatment for early prostate cancer.**