

Side Effects: Erectile Dysfunction

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Prostate Seed Implantation (PSI) at Lindenhofspital Bern since 2004

- 410 patients at total

– 2004 n = 10

– 2005 n = 18

– 2006 n = 36

– 2007 n = 73

– 2008 n = 59

– 2009 n = 92

– 2010 n = 66

– 2011 n = 56



400 consecutive patients for
evaluation

Follow up of the 400 pts.

- Until end of 2011:

	Visite	# pts.
– prior to PSI	0	400
– 6 weeks after	1	390
– 6 months	2	370
– 1 year	3	334
– 2 years	4	264
– 3 years	5	171

median f/u 2.8 years (35 month)

International Index of Erectile Function IIEF-score

Patient questionnaire

5 questions: IIEF-5

IIEF- International Index of Erectile Dysfunction

Today's date: [TT/MM/YYYY]

Initials: [name] [first name]

Birthdate: [TT/MM/YYYY]

Instruction:

Please choose the appropriate column for each question

Please check one box only

1. How do you rate your confidence that you could get an keep an erection?	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	
2. When you had erections with sexual stimulation, how often were your erections hard enough for penetration?	no sexual stimulation <input type="checkbox"/> 0	never or almost never <input type="checkbox"/> 1	a few times <input type="checkbox"/> 2	sometimes <input type="checkbox"/> 3	most times <input type="checkbox"/> 4	almost always or always <input type="checkbox"/> 5
3. During sexual intercourse, how often were you able to maintain your erection after you had penetrated (entered) your partner?	sexual intercourse never tried <input type="checkbox"/> 0	never or almost never <input type="checkbox"/> 1	a few times <input type="checkbox"/> 2	sometimes <input type="checkbox"/> 3	most times <input type="checkbox"/> 4	almost always or always <input type="checkbox"/> 5
4. During sexual intercourse, how difficult was it to maintain your erection to completion of intercourse?	sexual intercourse never tried <input type="checkbox"/> 0	extremely difficult <input type="checkbox"/> 1	very difficult <input type="checkbox"/> 2	difficult <input type="checkbox"/> 3	slightly difficult <input type="checkbox"/> 4	not difficult <input type="checkbox"/> 5
5. When you attempted sexual intercourse, how often was it satisfactory for you?	sexual intercourse never tried <input type="checkbox"/> 0	never or almost never <input type="checkbox"/> 1	a few times <input type="checkbox"/> 2	sometimes <input type="checkbox"/> 3	most times <input type="checkbox"/> 4	almost always or always <input type="checkbox"/> 5

IIEF- 5

- 5 questions: when you attempted intercourse
 - Confidence to get and to keep an erection
 - Erection hard enough to penetrate
 - Ability to maintain erection during intercourse
 - Ability to maintain erection to completion of intercourse
 - Was intercourse satisfactory
- 0 – 5 points (the more the better)
 - 0 did not attempt
 - 1 (almost) never
 - 2 <50%
 - 3 50%
 - 4 >50%
 - 5 always

IIEF-5-score based evaluation (1 – 25 points)

acc. to: Rhoden et al: Int J of Impotence Research, 2002:

- 5 categories of erectile dysfunction
 - no 22 - 25 points
 - mild 17 - 21 points
 - mild – moderate 12 – 16 points
 - moderate 8 – 11 points
 - severe < 8 points

Prostate Brachytherapy Side effects: Evaluation of Erectile Dysfunction

RESULTS

Comparison with the ProBrachy Database

Lindenhofspital

	N	IIE-5 Mittelwert
Baseline	400	17.4
6 weeks	390	11.0
6 months	370	12.8
1 year	334	13.4
2 years	264	13.6
3 years	171	13.2

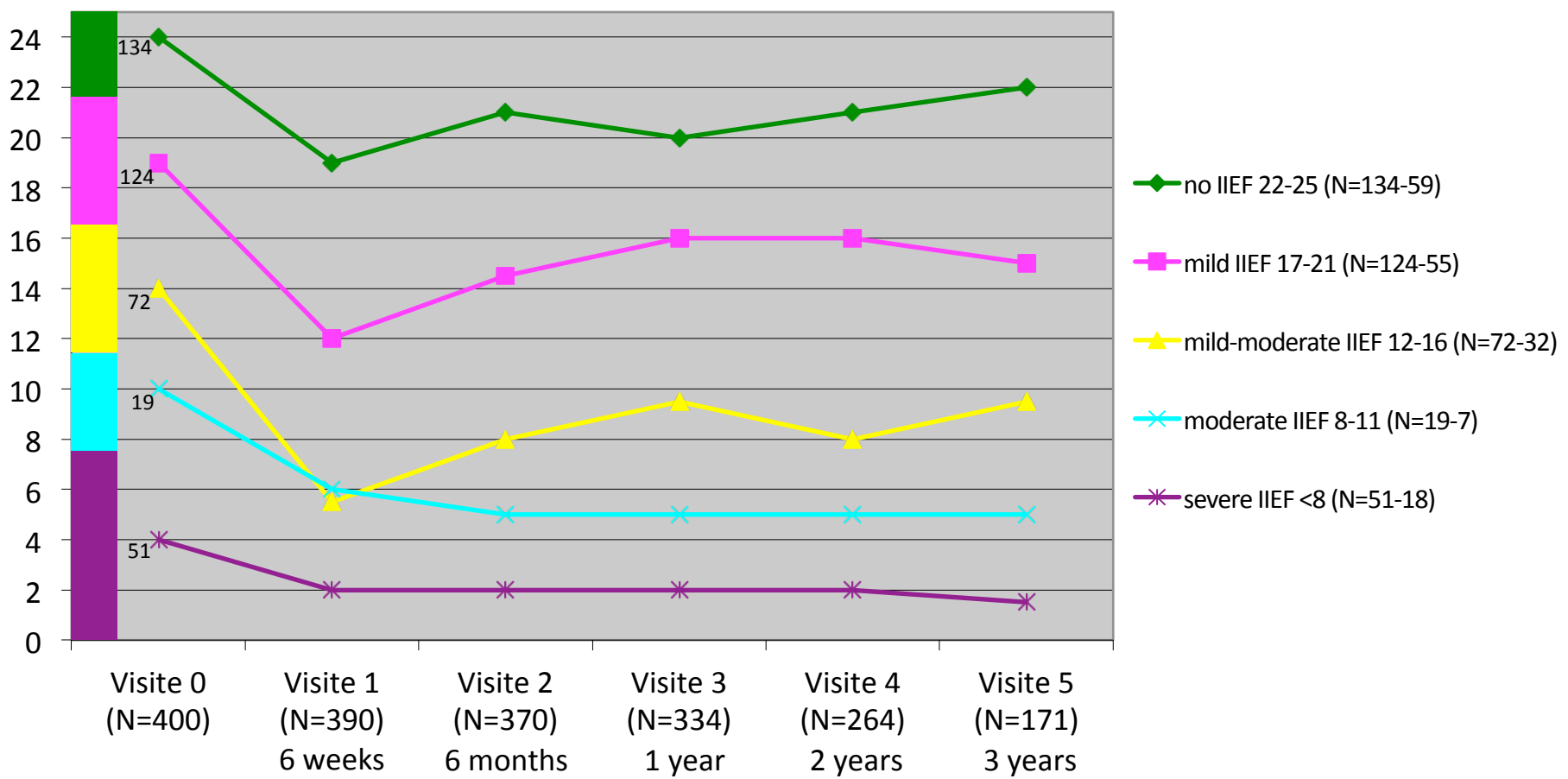
ProBrachy Database

	N	IIE-5 Mittelwert
Baseline	1197	15
3 months	332	12
6 months	43	14
1 year	451	13
2 years	244	13
3 years	108	14

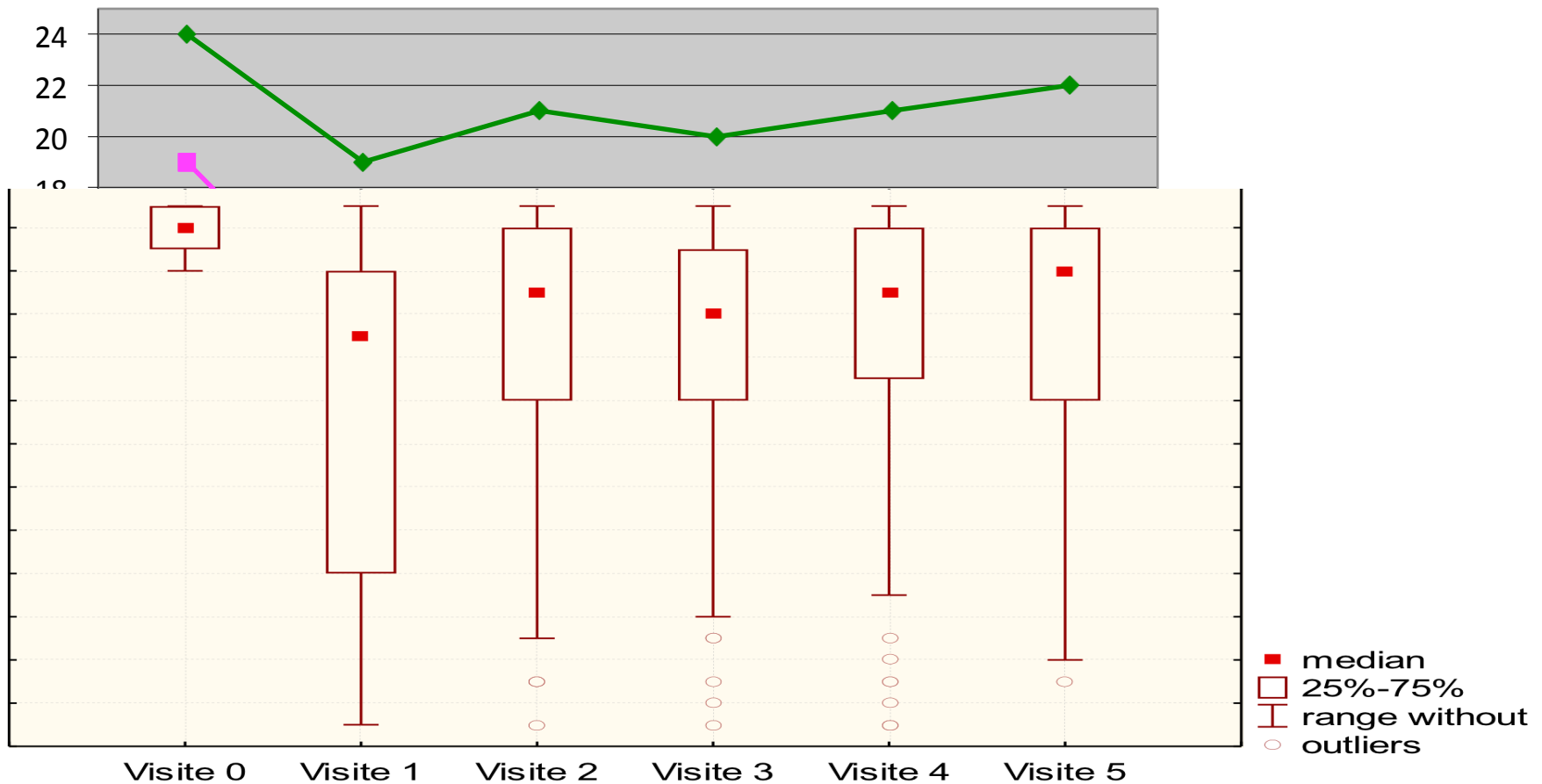
by Courtesy of St. Machtens

Dependence of IIEF-score on pre-therapeutic condition

median values:



Dependence of IIEF-score on pre-therapeutic condition: median and confidence intervals in the favourable group



Patients with initially normal potency (IIEF >21)

Still have normal potency:

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF >21	134/134	37/132	58/122	45/109	45/91	31/59
= no ED	100%	28%	48%	41%	50%	53%

Still have normal potency or only mild ED:

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF >16	134/134	77/132	91/122	81/109	69/91	43/59
= no or mild ED	100%	58%	75%	74%	76%	73%

Patients with initially mild ED (IIEF >16 and <21)

Still have no or mild ED:

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF >16 (<21)	124/124	33/118	40/114	49/105	34/84	21/55
= no or mild ED	100%	28%	35%	47%	41%	38%

Still have better than moderate ED:

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF ≥12	124/124	60/118	70/114	78/105	61/84	33/55
> moderate ED	100%	51%	61%	74%	72%	60%

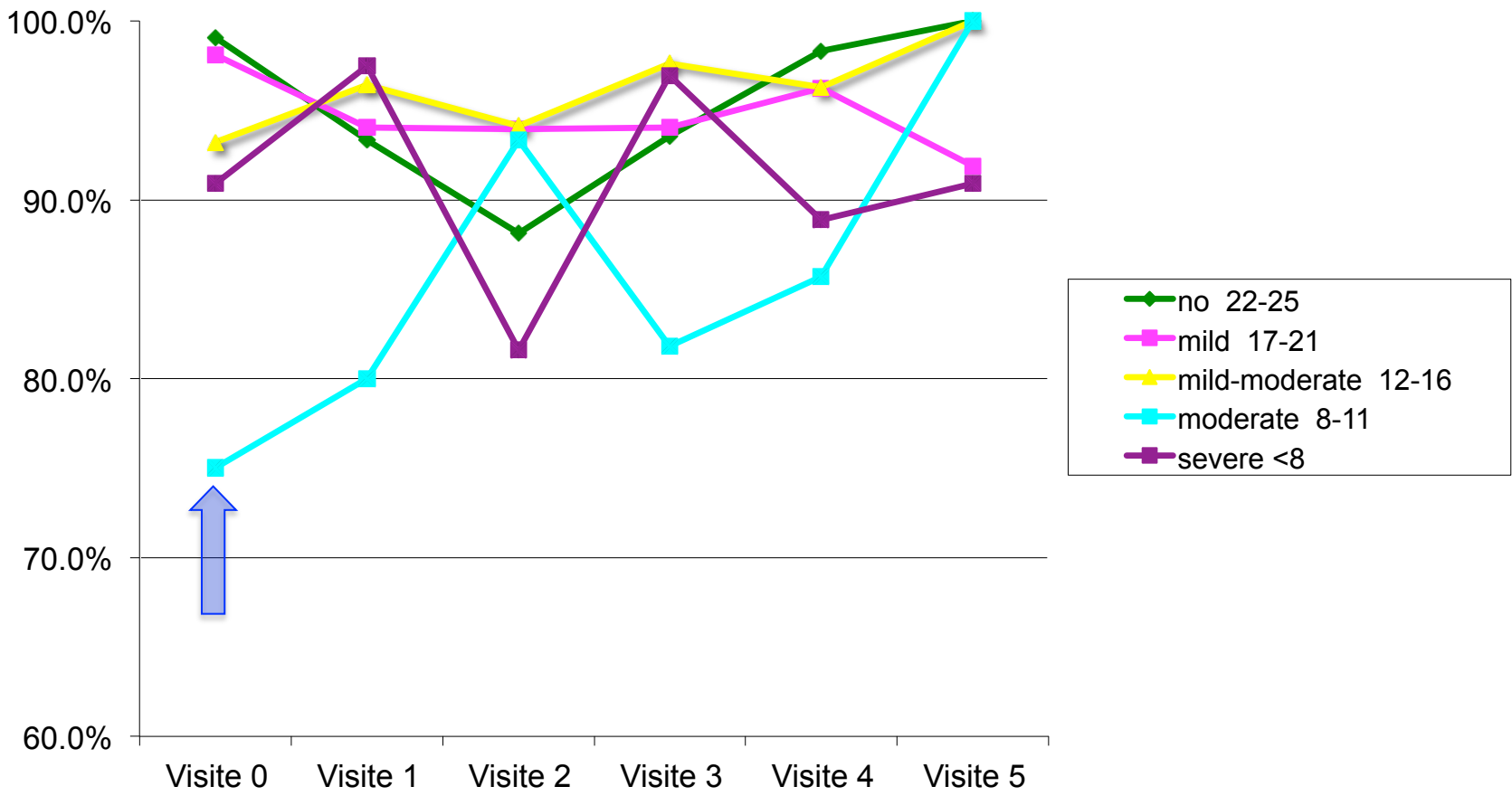
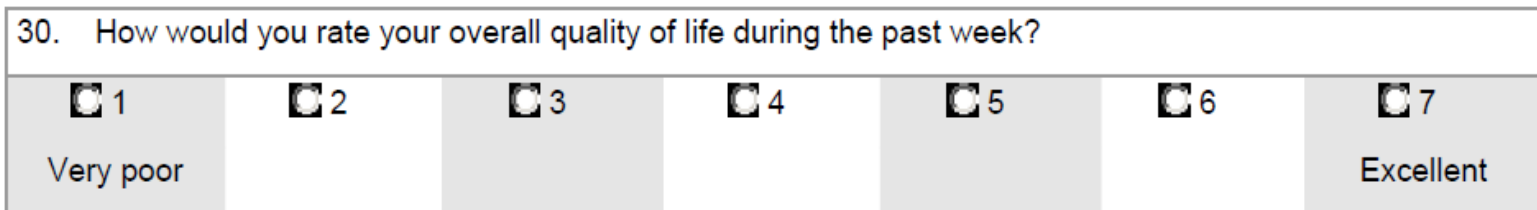
Patients with initially no or mild ED (IIEF >16)

Group 1 and Group 2

Still have normal potency or mild ED:

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF >16	258/258	110/250	131/236	130/214	103/175	64/114
= no or mild ED	100%	44%	56%	61%	59%	56%

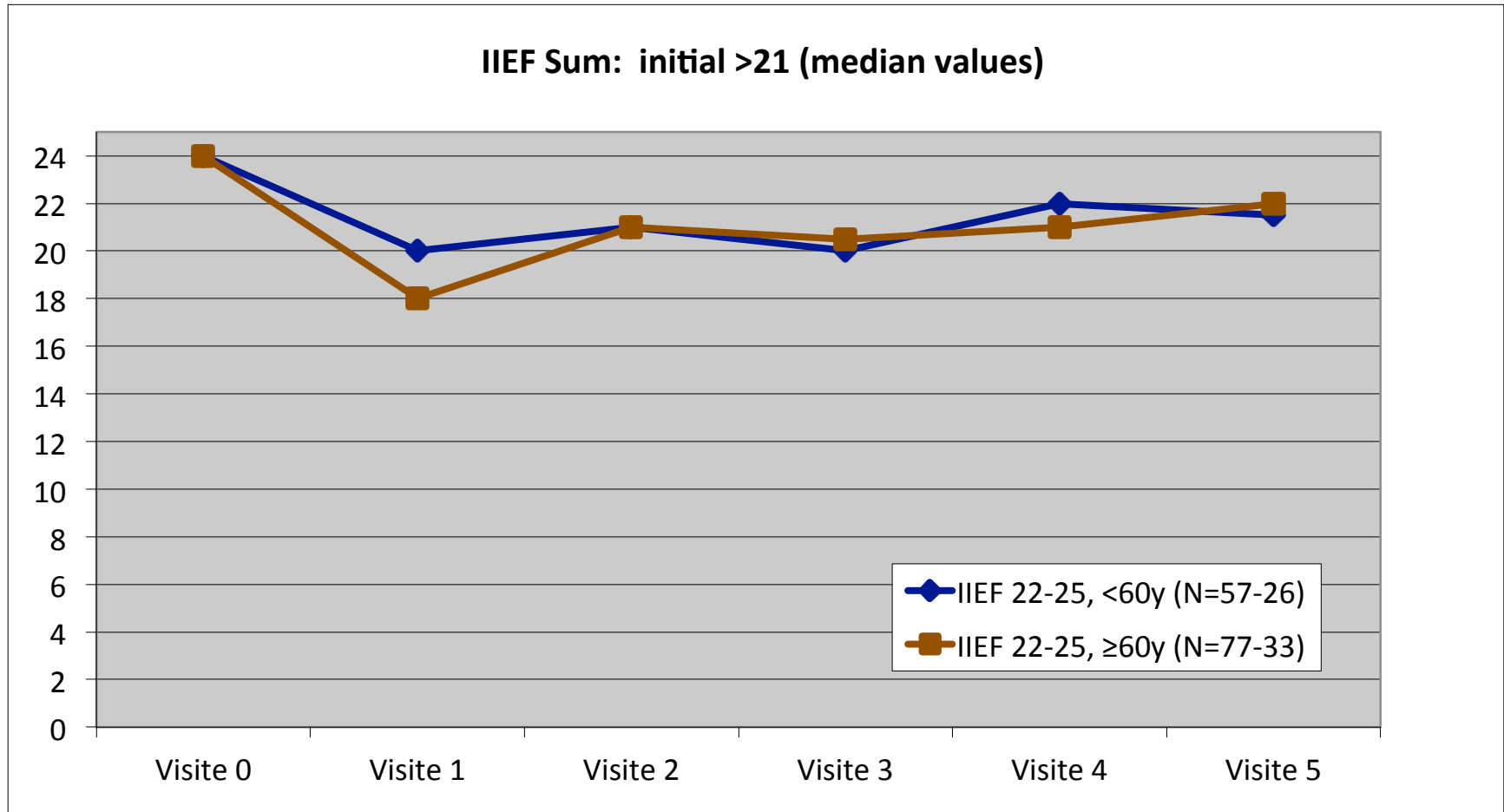
Influence on Quality of Life? „No“



Comparison between younger than 60 and older than 60

IS AGE IMPORTANT?

No ED: < 60y vs ≥ 60y



Patients with initially normal potency

younger than 60 years and still no ED

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF > 21	57/57	18/55	25/51	20/47	22/42	13/26
= no ED	100%	33%	49%	43%	52%	50%

60 or older and still no ED

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF > 21	77/77	19/77	33/71	25/62	23/49	18/33
= no ED	100%	25%	47%	40%	47%	55%

Half of the pts. will not develop an ED irrespective of age!

Patients with initially normal potency

younger than 60 years and then no or only mild ED

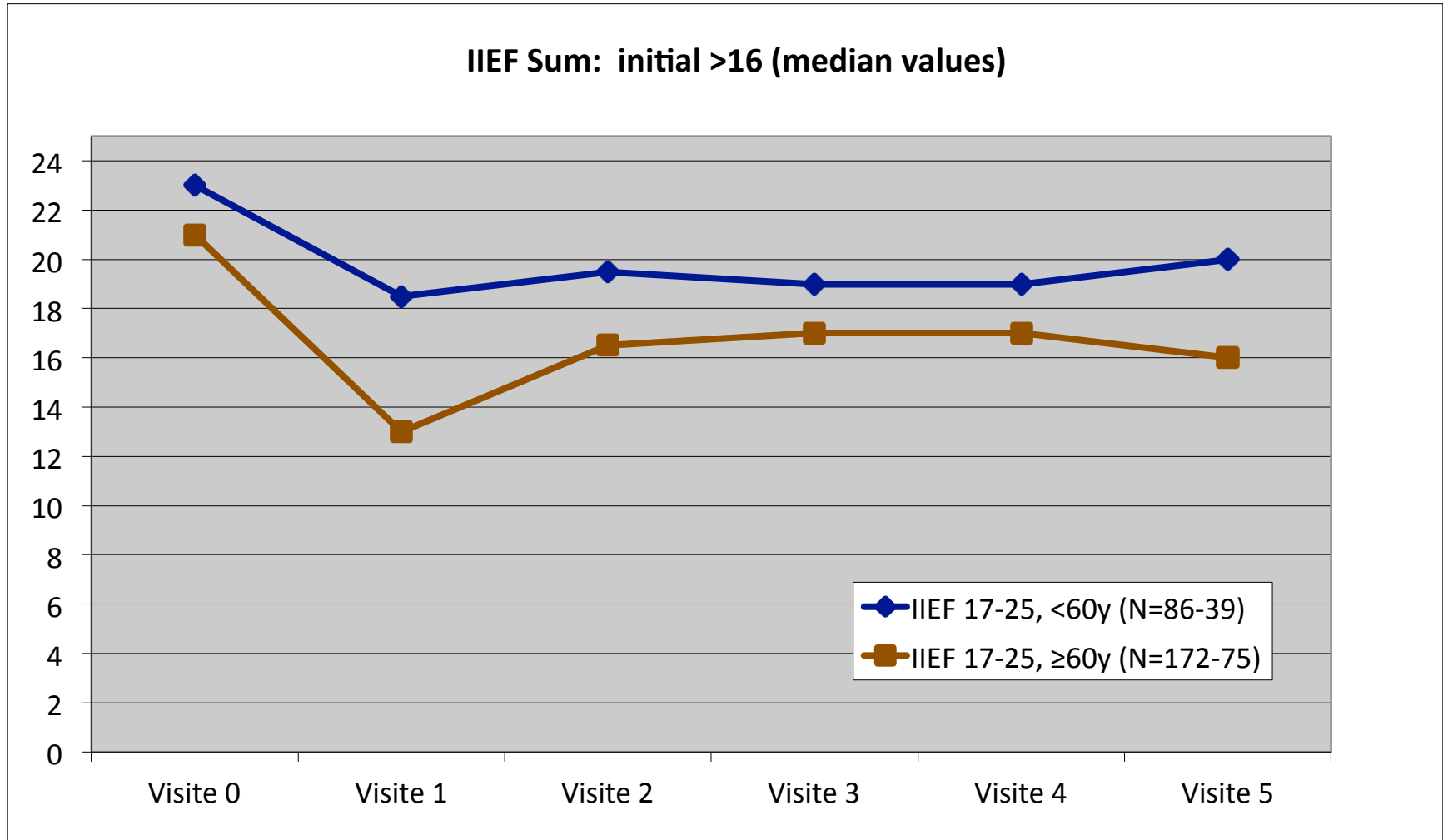
	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF > 16	57/57	35/55	40/51	34/47	33/42	20/26
= no <u>or</u> mild ED	100%	64%	78%	72%	78%	77%

60 or older and after PSI no or only mild ED

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF > 16	77/77	42/77	51/71	47/62	36/49	23/33
= no or mild ED	100%	55%	72%	76%	74%	70%

$\frac{3}{4}$ of the pts. will still have a quite good erectile function irrespective of age!

No or mild ED: < 60y vs ≥ 60y



Patients with initially **mild** or **no** ED

younger than 60 years and no or only mild ED

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF > 16	86/86	46/82	51/76	46/69	41/58	27/39
= no or mild ED	100%	56%	67%	67%	71%	69%

2/3 of the younger pts. will still have a quite good erectile function

60 or older and no or only mild ED

	initially	6 weeks	6 Months	1 year	2 years	3years
IIEF > 16	172/172	64/168	80/160	84/145	62/117	37/75
= no or mild ED	100%	38%	50%	58%	53%	49%

half of the older pts. will still have a quite good erectile function

Summary

- The preservation of erectile function after PSI should not be assessed in terms of “yes or no”
- The impact of PSI on erectile function is dependent on pre-therapeutic condition
- The majority of patients will experience a slight drop of IIEF-score of about 5 points
- The subgroup of pts. without pre-existing ED will have a satisfying sexual life after PSI (irrespective of age)

Simplified Summary

- Half of the pts. will stay in the same category of erectile dysfunction
- $\frac{3}{4}$ of the patients will stay in the same or 1 category lower
- e.g.:
 - mild will be mild in 50% or mild to moderate in $\frac{3}{4}$
 - $\frac{3}{4}$ of the patients will preserve a rather good or excellent erectile function, if no there is no ED initially