



Schemi terapeutici “complessi” per la gestione della disfunzione erettile post trattamento del carcinoma prostatico: non solo PDE5i

M. Lazzeri MD-PhD

Department of Urology

Ist. Clinico Humanitas IRCCS

Schema terapeutico complesso

- Insieme, multimodale di strategie attive e terapeutiche mirate alla risoluzione di un disturbo generalmente non rispondente ad una terapia “semplice” monomodale o “standard”

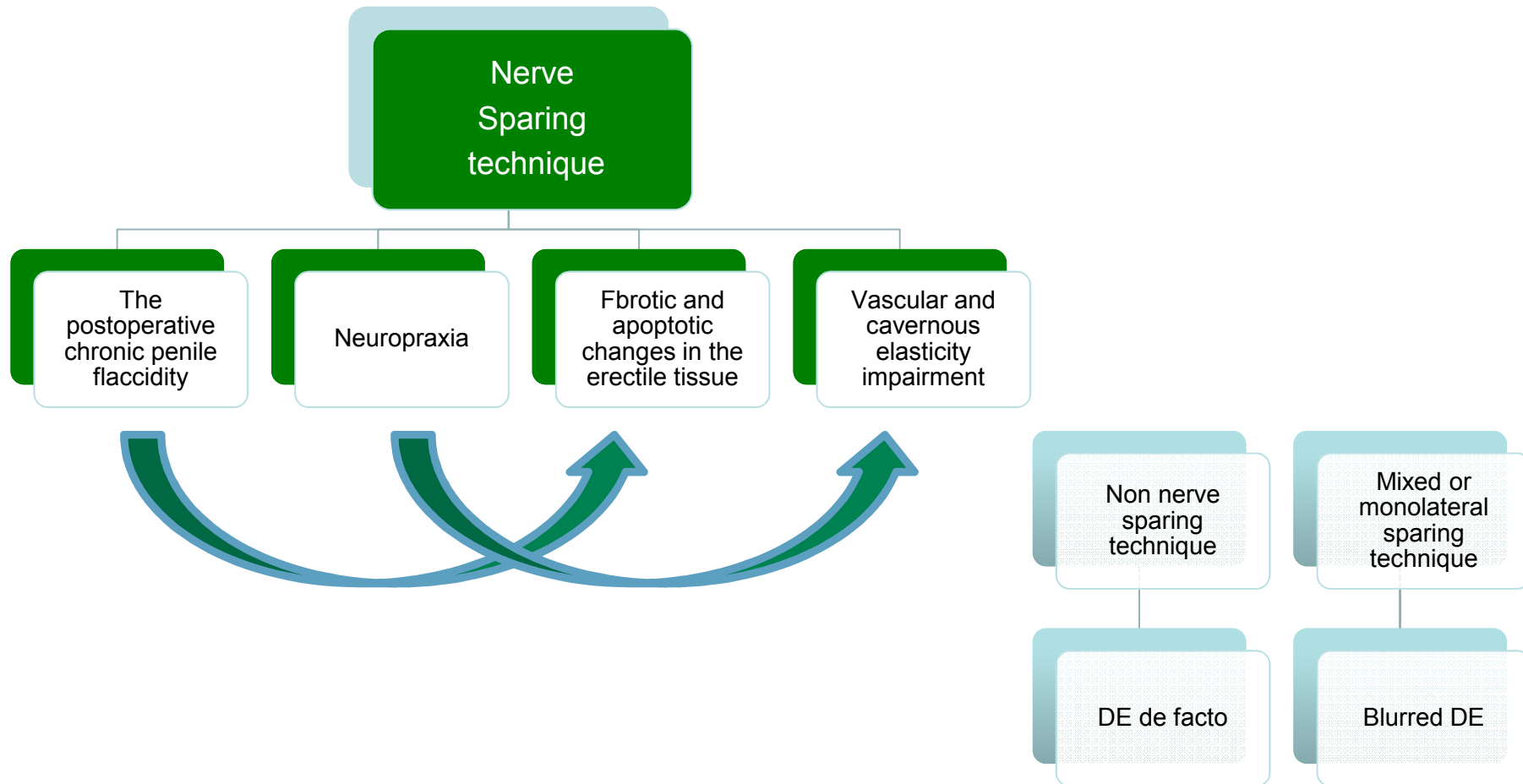


Erectile dysfunction post-radical prostatectomy – a challenge for both patient and physician

- **Pre operative factors**
 - Baseline erectile function
 - Hormonal status
- **Post operative factors**
 - *Age*
 - *Behavior*
 - Alcohol,
 - Smoking
 - Physical activity
 - *Comorbidities*
 - Diabetes
 - Obesity
 - Metabolic syndrome
 - Chronic kidney disease,
 - Cardiovascular disease
 - Neurological pathologies



PDE5i failure: three different scenarios



To do

- **Postoperative penile rehabilitation** should be introduced **as soon as possible** after surgery, to prevent fibrosis and to avoid irreversible structural changes that will determine end-organ damage responsible for the permanent ED.
- It has been demonstrated that any form of penile rehabilitation **is better than doing nothing**



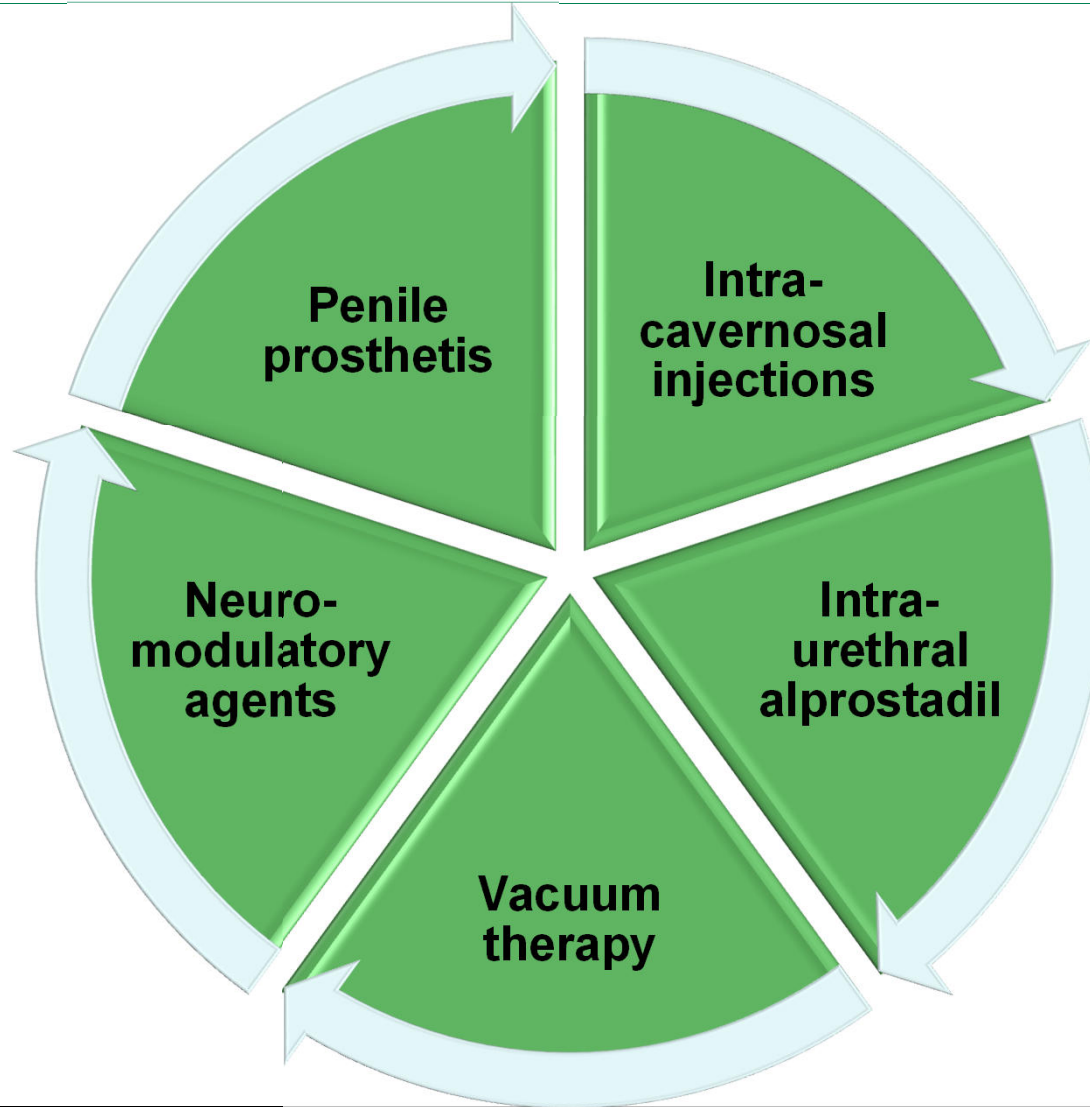
To do

What is the specific period in which EF revascularization is planned?

Rehabilitation and treatment are undoubtedly better than leaving the erectile tissue to its unassisted, unfavorable fate

to achieve satisfactory sexual intercourse in 12 to 24 months. Surgery with the help of a rehabilitation program

PDE5i failure

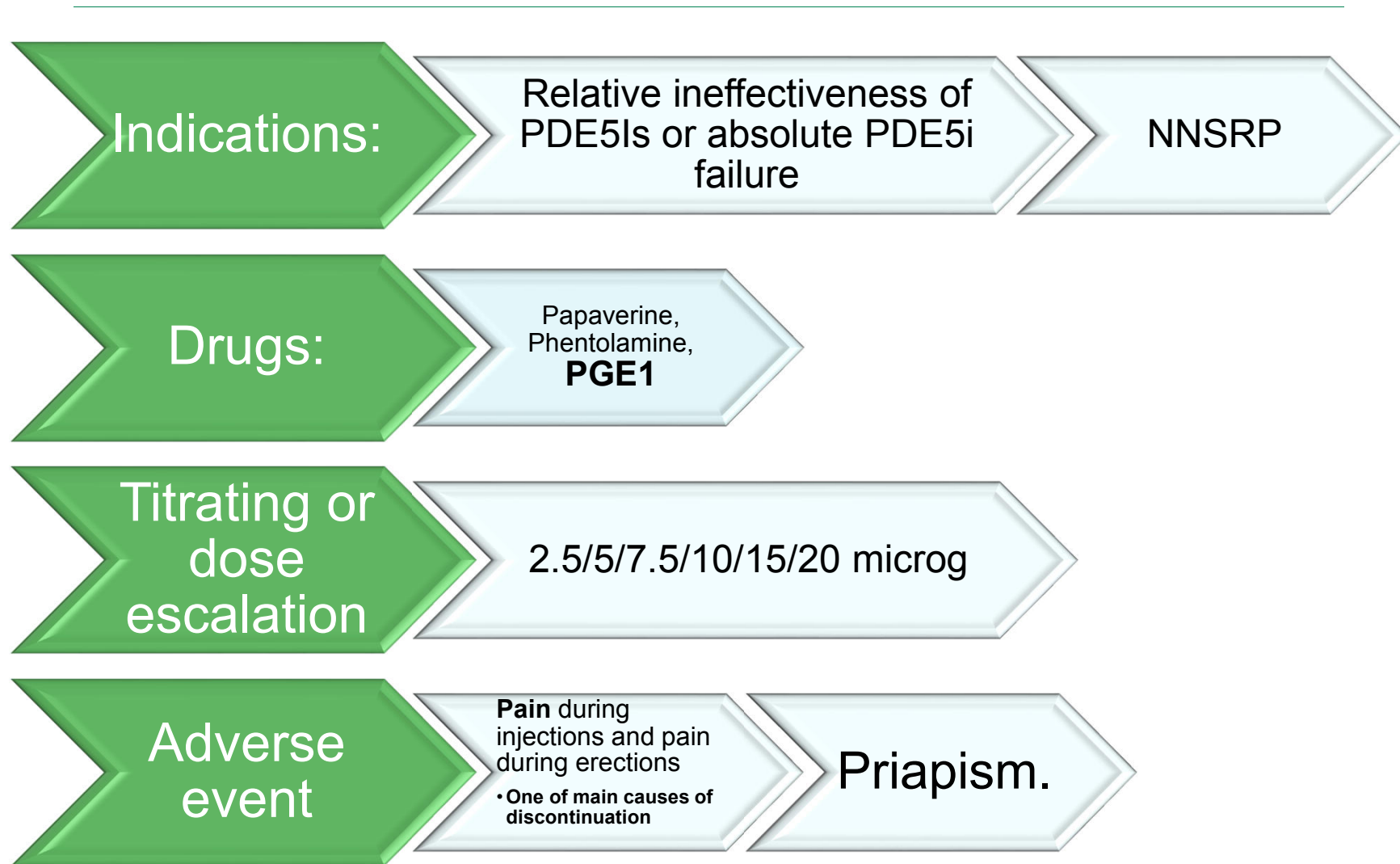


Intra-cavernosal injections

- Montorsi F, Guazzoni G, Strambi LF, Da Pozzo LF, Nava L, et al. **Recovery of spontaneous erectile function after nerve-sparing radical retropubic prostatectomy with and without early intracavernous injections of alprostadil: results of a prospective, randomized trial.** J Urol. 1997;158:1408–1410.

After six months 67% of the patients from the ICI group achieved spontaneous erections, strong enough for a satisfying intercourse

Intra-cavernosal injections



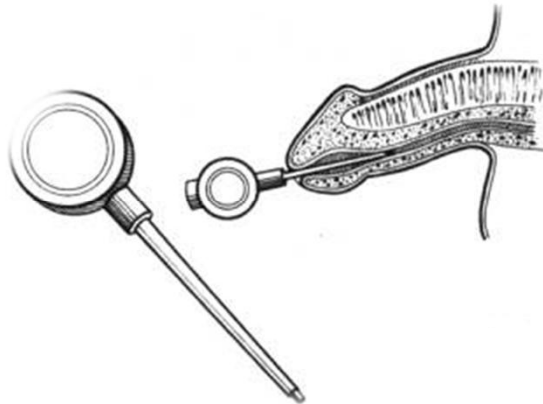
NNSRP: timing

Gontero *et al.* showed a trend towards a progressively decreasing erectile response with time from the operation

- 70% of the patients who received ICI within the first 3 months after RP did also achieve an erection sufficient for sexual intercourse
- After 3 months the chances of an acceptable response to alprostadil decreased to 40%.

Intraurethral therapy with Alprostadil suppository

- It acts by increasing the cAMP level and oxygenation by promoting blood flow throughout the urethra
- In a study evaluating the efficacy of intraurethral alprostadil suppositories (**IUA**) versus nightly **sildenafil** conducted on 212 patients, McCullough reported **no statistically significant differences** regarding intercourse success and IIEF scores between the two groups after nine months of treatment



Vacuum erection devices

- **It's** function is creating a vacuum around the penis and drawing blood into corpus cavernosum by a negative pressure.
- A constriction ring can be applied at the base of the penis to prevent the blood outflow, therefore sustaining the erection
- With or without PDE5i



Vacuum erection devices

To prevent irreversible fibrotic changes in the corpus cavernosum



To prevent penis shrinkage



To improve early recovery of erectile function



To obtain a mechanical erection in patients with PDE5i failure

Vacuum erection devices

Pros

- Simple
- Early use after RP
- Low price
- Safe

Cons

- Concerns in preventing the irreversible fibrotic changes
- It is questionable the effect regarding the long term erectile recovery

Penile prostheses

3rd line treatment

Indication

- Penile fibrosis and penile shortening
- Non responders to PDE5 and/or intracavernosus injections
- Poor compliance intracavernosus injections

Timing

- In most cases, a penile prosthesis implant is usually placed at least 2 to 3 years after RP

Penile prostheses



Penile prostheses

- There are numerous studies regarding the efficacy, safety, and satisfaction of the penile prosthesis.
- It was proven that the penile prosthesis option in the treatment of post RP ED is superior to the PDE5 inhibitors therapy, especially when evaluating parameters such as:
 - **penile firmness,**
 - **penetration ability,**
 - **intercourse frequency,**
 - **patient confidence, and satisfaction**

Penile prostheses

Infection

Erosion

Failure

**... Just one surgery more
and/or more surgeries**

Penile prostheses

Original Article

pISSN: 2287-4208 / eISSN: 2287-4690
World J Mens Health 2018 May 36(2): 132-138
<https://doi.org/10.5534/wjmh.17043>

The World Journal of
Men's Health



A Case Series of Patients Who Underwent Laparoscopic Extraperitoneal Radical Prostatectomy with the Simultaneous Implant of a Penile Prosthesis: Focus on Penile Length Preservation

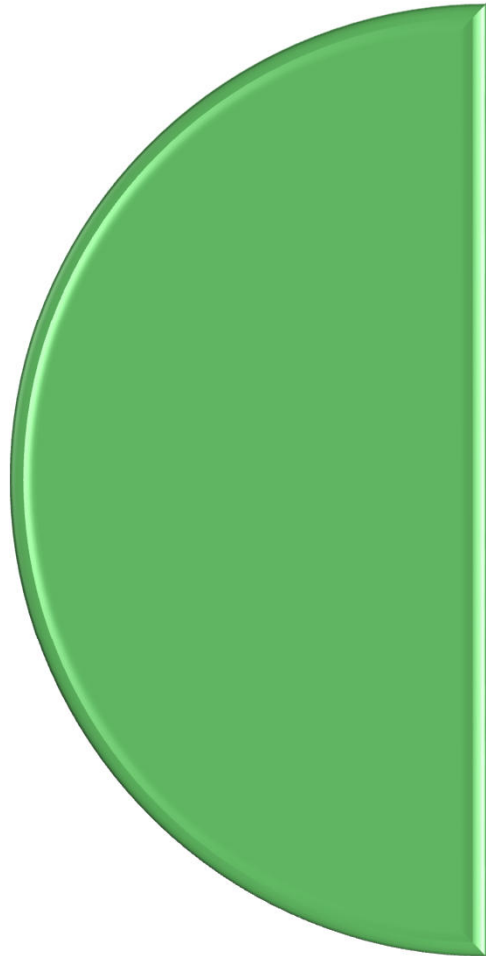
Nicola Mondaini¹, Tommaso Cai², Enrico Sarti¹, Gaia Polloni³, Andrea Gavazzi¹, Duccio Conti⁴,
Andrea Cocci⁵, Maarten Albersen⁶, Gianmartin Cito⁵, Riccardo Bartoletti⁷

Penile prostheses

It is not really new:

First simultaneous placement of a penile prosthesis during open RP in 1997

Khoudary KP, DeWolf WC, Bruning CO 3rd, Morgentaler A. Immediate sexual rehabilitation by simultaneous placement of penile prosthesis in patients undergoing radical prostatectomy: initial results in 50 patients. *Urology* 1997;50:395-9



Indications:

- Nerve-sparing/non-nerve-sparing RP
- Pre-existing ED,
- Contraindication for PDE5i
- Previously documented non-response to PDE5i
- Stable relationship for at least 6 months.

Mondaini et al

Table 1. Clinical, laboratory, and demographic characteristics

Characteristic	Value
Patients	10
Age (y)	61 (56–65)
PSA (pre-surgery)	9.3 (6.3–13.7)
Partner's age (y)	50 (27–61)
IIEF score	
TNM+Gleason score	
T2c 3+3	
T2c 4+4 (positive margin)	
T2c 4+3	1
T2c 3+4	2
T2b 3+3	1
T2a 3+3	1

Table 2. Post-surgery penile size measurements

Variable	Post-surgery penile size (cm)	p-value*
Intraoperative	9.0 (8.5–9.5)	-
30 d	9.5 (8.0–9.8)	0.27
3 mo	9.0 (8.1–9.7)	0.82
	9.6	0.81
	9.7	0.82
	9.6	0.81
	9.7	0.81

Age 61 yrs old

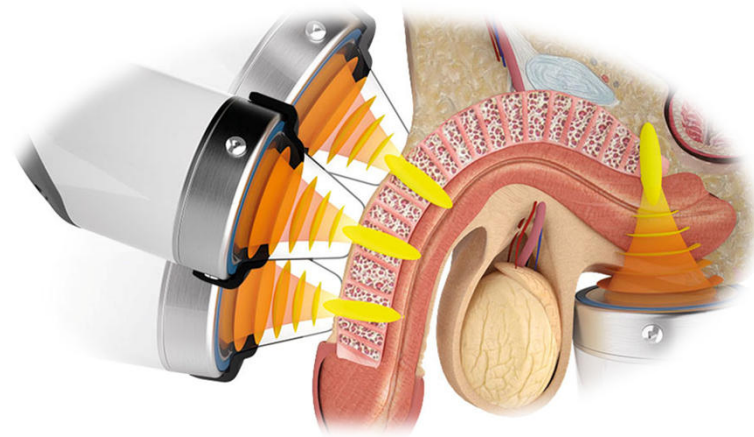
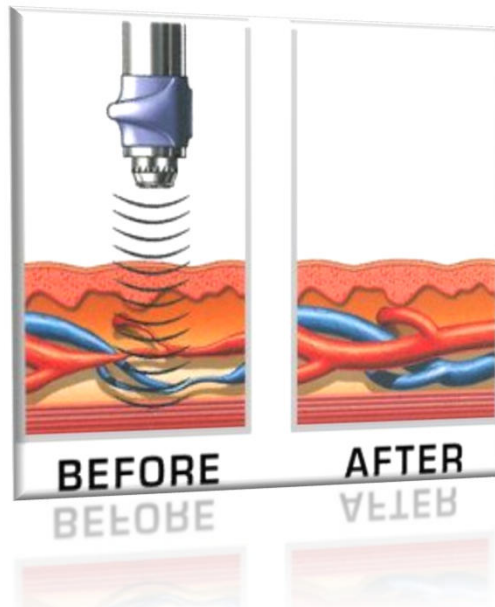
Simultaneous laparoscopic extra-peritoneal RP surgery and PPI seemed to be an interesting option to propose to selected and very motivated patients.

Val...
PSA: prostate-specific antigen; IIEF: International Index of Erectile Function; VAS: visual analogue scale.

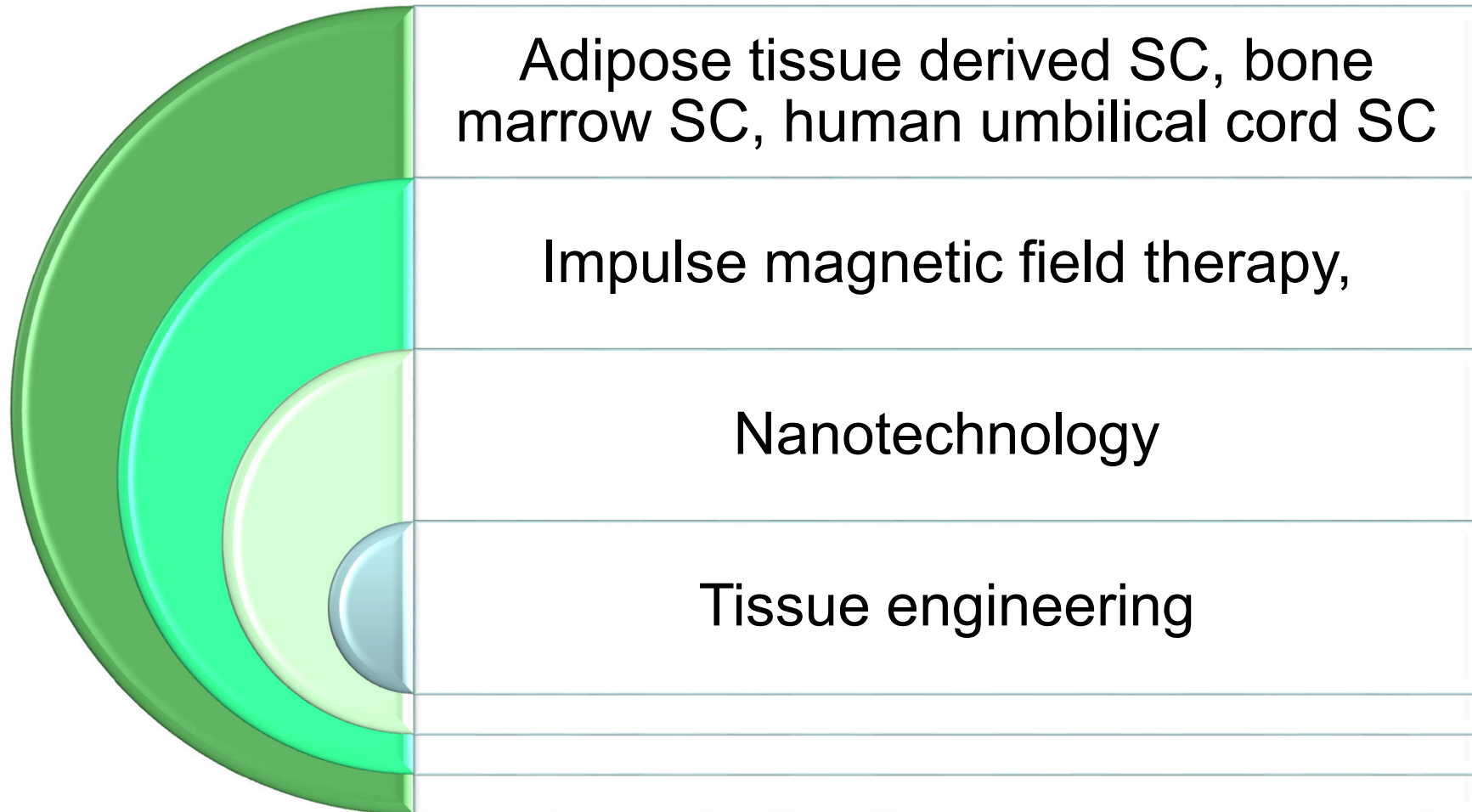
... values are presented as median (range).
*p-value statistically significant <0.005.

Low intensity ESWT

- The principle behind LI-ESWT in the treatment of post RP ED is that it induces local microtrauma with biological changes that lead to **neovascularization**, thus improving the **smooth muscle cells** and the **endothelial cells**, with an up-regulation of the **VEGF**, neuronal **NO** synthase and von Willebrand factor



Innovative approaches



Take home message

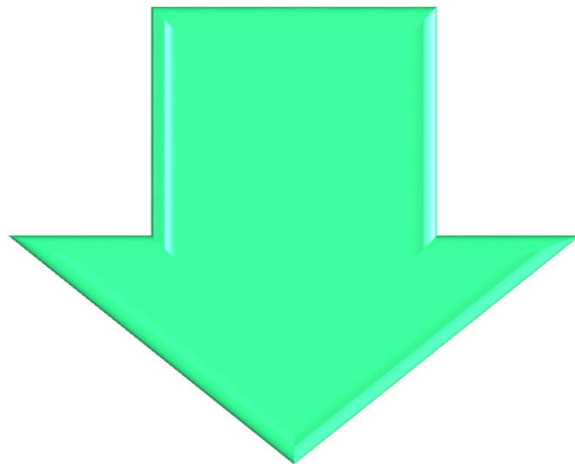


Take home message



Si può dare di
più:

- Sì



Come fare non
so:

- No