Intracavernous injection therapy
The CETI’s experience
1978-2007

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The first intracavernous injection

- When? 1980
- Where? Nanterre near Paris
- Whom? R. Virag
- How? During an operative procedure
- Why? To dilate the constricted epigastric artery
- Medication? Papaverine chlorhydrate
- First publication? Lancet, 1982
## Drogues Vaso-Actives

### PAPAVERINE

### IMPUISSANCE

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**La Voie pharmacologique**

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1985

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### Tableau II : Recapitulation des Drogues Vaso-Actives

<table>
<thead>
<tr>
<th>INHIBITEURS DE LA PHOSPHODIESTERASE (PDI)</th>
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**Note:**

- Tableau II contient une récapitulation des drogues vaso-actives. Les symboles utilisés (+, -) représentent différentes interactions ou effets. Les options spécifiques sont indiquées dans le tableau.
Early use of papaverine
Early therapeutical use: IC perfusions
ERECTILE RESPONSES TO IC VASOACTIVE DRUGS AND VSS

RIGIDITY (PENRIGS) 100

NORMAL

ARTERIAL

VENOUS

MIXED

INJECTION VSS START VSS STOP

TIME 1 MINUTE

75
The concept of self injection: 1983/1984 with Adrian Zorgniotti and Gorm Wagner

AUA 1986

ACTION OF IC INJECTION ON ERECTION

REPLACE
1 - STIMULATION - 1 bis
2 - TRANSMISSION - 2 bis

ENHANCE
3 - TUMESCENCE - 3 bis
4 - ERECTION - 4 bis

DELAY
5 - EJACULATION - 5 bis
6 - DETUMESCENCE - 6 bis

SEXUAL STIMULATION
VIP
PROSTACYCLINE
Improvement of the technique 1984-98

- Multilevel acting medications
- Control of prolonged erections (etilefrine)
- Automatic injectors
- Careful teaching
Immediate and late results

- 90% of the current ED patients respond to Intracavernous medications
- When carefully taught and followed the rate of drop out is no more than 20%
- Side effects are minimal
The CETI’s experience

- Casuistics
- Drugs’ efficacy
- Treatment tricks
- Complications
- Overall results

- Cardiovascular disease
- Endocrine
- Quality of life
- Personal approach and ICI in the future
The CETI’s experience: CASUISTICS 1

- On a total of **13.789** patients attended in our institution **6.782** have been submitted to ICI injections by the end of 2007.

- **2348** have been followed a minimum of **10 years** at the end of **2007**.

- Follow up by annual visit or recall by phone or letter.

- The study will be hopefully completed by the end of **2008**.
The CETI’s experience : CASUISTICS 2

- The goal of the study is to evaluate the tolerance and the way of living with ICI therapy on the long term
  - locally (erection, ejaculation, complications)
  - health in general (intercurrent diseases)
  - sexual and affective life (partner(s), self esteem, activity)
The CETI’s experience: CASUISTICS 3

- The data presented here are preliminary
  and come from 3 subsets
  - overall study OS (n=2348)
  - Already completed (n=377) patients treated from 10 to 25 years
OS~ AGE at the initiation of ICI therapy

mean = 50.57 +/- 12.7
OS~Medication used at the end of study

- P/C
- P/V
- PAP
- P/T
- CAVIDEX
- PGE
- PCP
Reasons to stop the treatment (n=174)

- Erections stabilized 25.8%
- Psychological problems 20.1%
- Cost of treatment 17%
- Inefficacy 14.3%
- Partner opposition 9.1%
- Intercurrent disease 5.7%
- Stopping sexual activity 5.7%
On treatment compliance
Very long term study (n=377)

- 174 (46%) have stopped the treatment, but
  - 25% claimed they are CURED (?)
  - 17% asked for REINDUCTION
- 203 (54%) keep on with the treatment
  - 68% use it continuously
  - 32% occasionally
    » stress, fatigue
    » Modification in couple status
    » New stressing situation
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After the launching of the Viagra
Global responses to Viagra (n=157)
Final decision in patients tested with PDE5 inhibitors while under ICI (1998)

- 59% Retour
- 34% Viagra
- 25% Injections
- 10% Inj + Viagra
- 32% autre

Retour secondaire aux AI +11%
On erection and ejaculation

- The average duration of ERECTION is 75mn

- When > 2.5 hours patient is required to inject himself an antidote: etilefrine
About sexual life: partners
Quality of life: family status

Quality of life:

married divorced bachelor widow

beg. end
Partner’s knowledge of tt.
Woman attitudes towards ICI

Positive

- The couple consults together
- She participates to the treatment
- She even injects herself
- She enjoys the prolongation of erection, improving her own pleasure

Negative

- Absent: “it’s your problem”
- She anticipates a concurrent to her gesture of sexual activity.
- It’s not natural
- He will use it elsewhere
Men and ICI

“Doctor, you changed my life…”

- Secrecy even in stable relationship: a question of ego
- Hidden because started at the beginning of a new love story
- Hidden because used in a non official relation

- Stability and permanence of the results
- Suppression of performance anxiety +++
- Better control of ejaculation
- Works even if there is not much desire
ICI and the Couple: *Some thoughts*

- The couple exists
  - Stable: resolving sexual problems reinforce it
  - Unstable for other reasons: needs psychotherapy and/or counseling prior or during therapy

- The couple in the future or when it does not exist
  - ICI is a tool for stability, self esteem and abolished performance anxiety
  - Be careful in counseling transparency. It might ruin the future…
Benefits in a cohort of 600 patients treated with self intracavernous injections since 10 to 25 years
an ongoing personal study-intermediate results

- Mortality reduced compared to general population
- Concerns for well being and health higher
- Better compliance in any treatment
- Imbalance of hormones good prostate survey and
- Early detection of cardiovascular events and decrease frequency of myocardial infarction and stroke

“Total health care program”
- Questionnaire
- Clinical evaluation
- Biology
  » Proteomics
  » Full testing of hormones
  » PUFA
  » Oligo elements, oxydative stress
  » Digestive and infectious etc..
- Imaging the body
  » Coroscan, MRI etc..

Hormones
PUFA
antioxidants
Chrono
nutrition
Physical
rehabilitation
Le sexe c'est confortable quand il n'y a pas assez d'amour...
García-Marquez

Le sexe sans l'amour ce n'est pas le paradis,
mais l'amour sans le sexe c'est l'enfer
Françoise Sagan
Groupe d’Evaluation du Laser et de l’Echographie vasculaire
www.gelev.com

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