



SURGICAL TREATMENT OF MALE INFERTILITY

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Only a few causes of male infertility can be surgically treated

- Varicocèle
- Obstructive causes 7% to 14%



Pathology

☞ Congenital

- agenesis (cystic fibrosis...)

☞ Aquired

- infectious (tuberculosis, chlamydia...)
- iatrogenic (hernia repair)



VARICOCELE

- 15% of normal males
- 40% of primary infertility
 - ◆ bilateral
- 80% in secondary infertility
 - ◆ Deleterious effect
 - ◆ Heat, Toxic?, Pressure



VARICOCELE

Indication

☞ Infertility

- ◆ Clinical « bag of worms »
- ◆ Subclinical

☞ scrotal pain



VARICOCELE

Techniques

☞ High ligation

- ◆ retroperitoneal, 2% failure

☞ Inguinal ligation

- ◆ safe and easy, up to 21% failures

☞ Radiological embolization

- ◆ cost and time effective, 12% failure

☞ Laparoscopy

- ◆ needs skill. 2% failure (High ligation)



VARICOCELE

results

- 50 to 90% improvement in semen quality
- 30 to 50% pregnancies after 6 to 9 months



Prostatic obstruction

- ☞ Compression or obstruction of the ejaculatory duct
 - Infectious, congenital Mullerian cyst, Wolffian malformation
 - suspected by low semen volume.



EJACULATORY DUCT RESECTION

- ☞ transurethral incision

 - ◆ resectoscope

- ☞ Excellent result

 - ◆ importance of diagnosis

- ☞ Side effects

 - ◆ urinary reflux in the seminalas



Vaso-vasostomy

Indications

- Post infectious stenosis
- Iatrogenic section
- Short segmental agenesis
- Vasectomy reversal
 - ◆ 2% of vasectomies



Vaso-vasostomy Technique

☞ Two layer

- ◆ microscope
- ◆ approximator
- ◆ 10-0 and 9-0 polyglycolic sutures

☞ Modified two layer

- ◆ no microscope
- ◆ 9-0 monofil. polyglycolic

☞ Other techniques

- ◆ glue, rod, laser....



Vaso-vasostomy

Results

- 86 % patency rates
- 50-60% pregnancy rate
- little relation with time after vasectomy



Vaso-epididymostomy

Indications

- Best in case of obstruction at the level of the body or the tail of the epididymis.
- Poor at the level of the rete testis



Vaso-epididymostomy Technique

☞ Termino-terminal

- ◆ The epididymis is transected, exposing the efferent tubule
- ◆ 3 to 4 10-0 sutures approximating the mucosas then 6 to 8 9-0 sutures securing the serosa

☞ Latero-terminal (older technique)

- ◆ The epididymis is incised and a tubule laterally opened



Vaso-epididymostomy

Results

- Patency rate approx. 64%
- Pregnancy rate 30%



Epididymal sperm aspiration M.E.S.A.

- Not a treatment
- Combined with I.C.S.I
- Depends more on the skill of the biologist than of the surgeon
- Microscopic procedure



I.C.S.I. with testicular biopsy (TESA)

- ☞ Sampling of spermatozoa in testicular fragments
 - ◆ 50% after negative former biopsy even with elevated FSH
 - ◆ in almost all obstructive cases
- ☞ Spermatozoa , germinal cells
- ☞ No microscope



CONCLUSION



We are improving our ability to treat male causes of infertility in two different ways :

Microsurgery and the development of endoscopic tools will allow us to cure an increasing number of patients.

I.C.S.I. coupled with MESA or TESA gives a chance to those who cannot be treated. It will sometimes even be preferred to reconstructive surgery.