

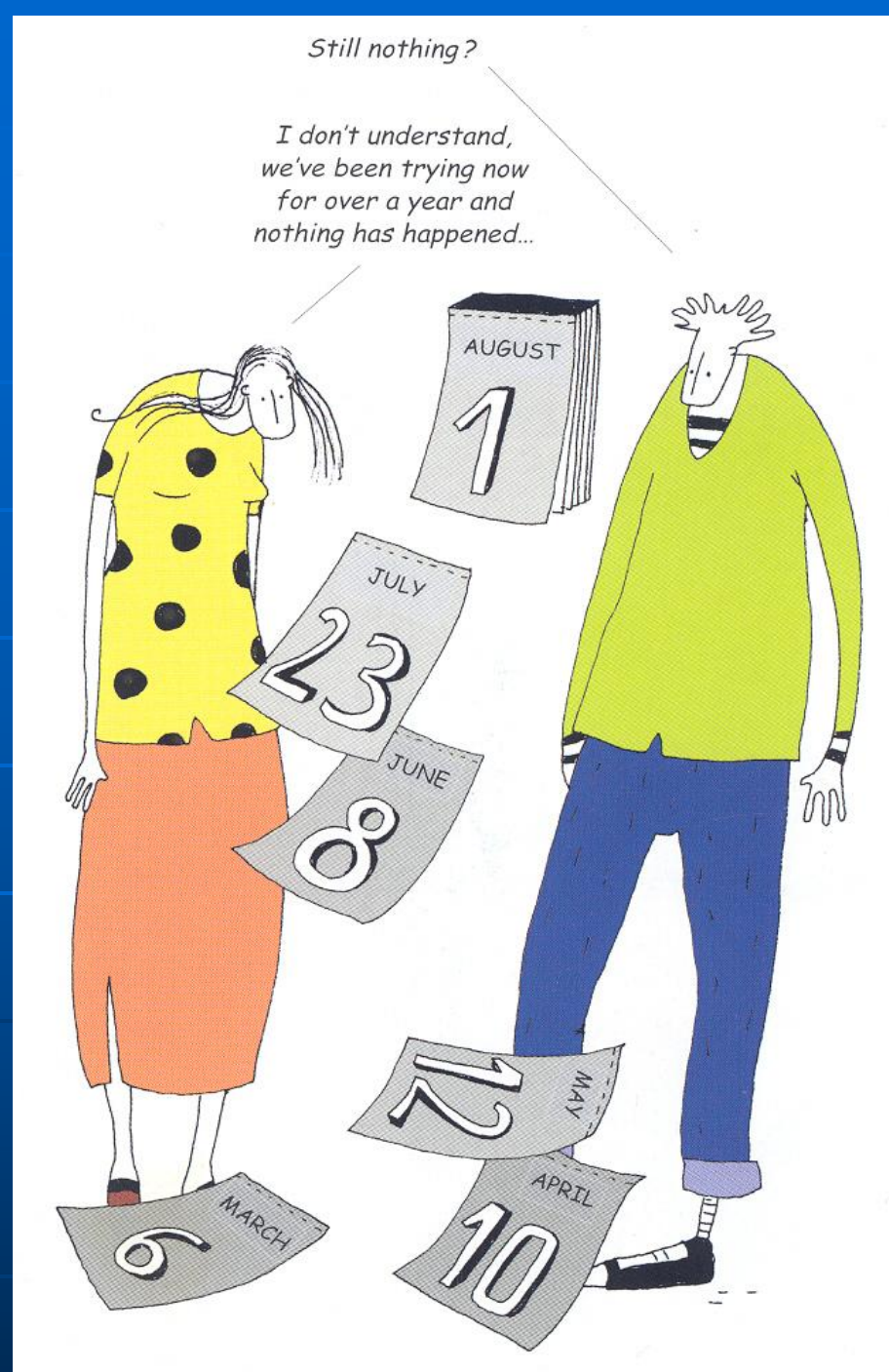
ART : When to offer ?

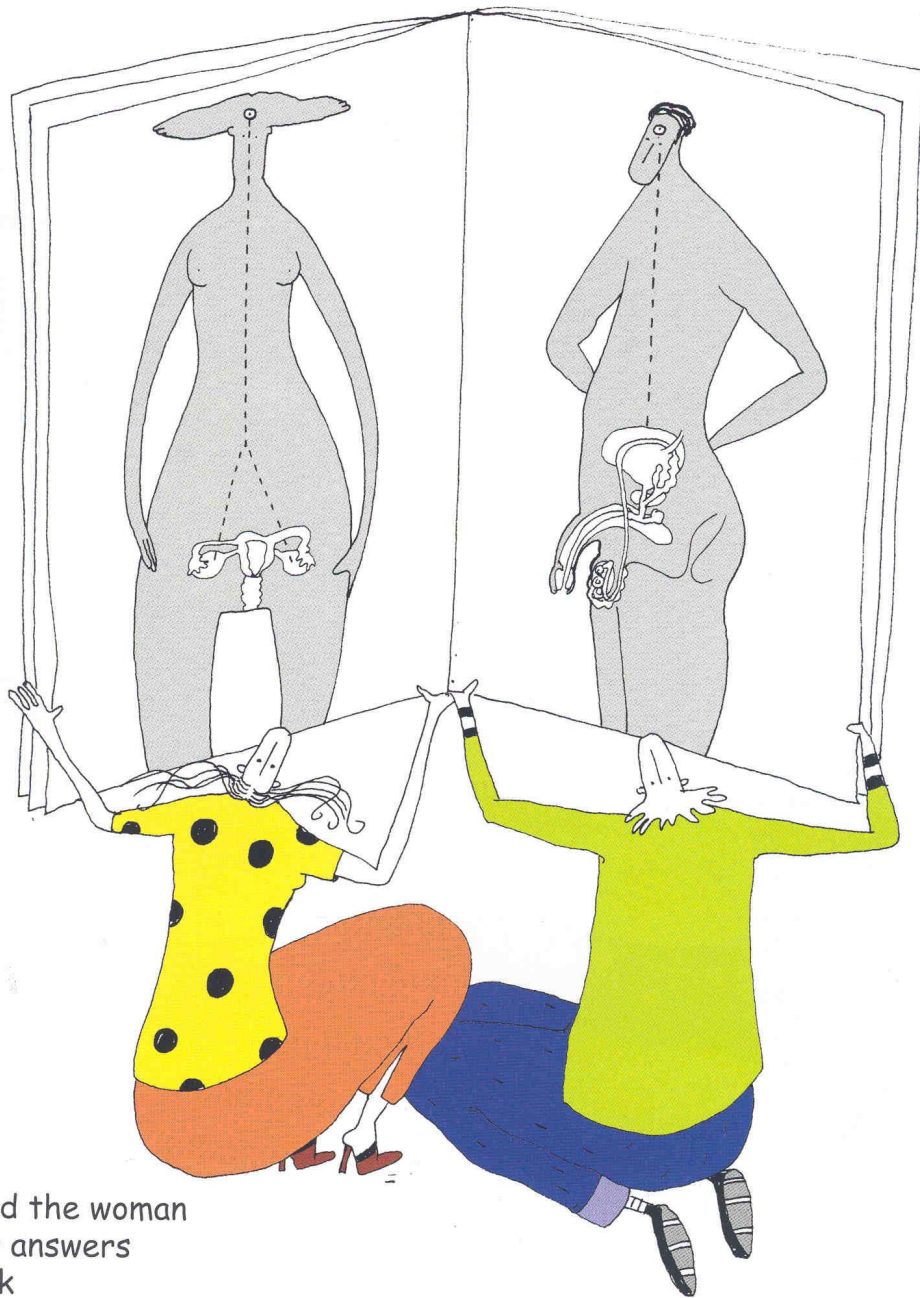
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It is a
Special...
Unique...
Common...
story of
a man
and
a woman



Time goes by and
nothing happens
the first questions
are raised





The man
and
the woman
look for
answers
in a
book

- the man and the woman
look for answers
in a book

Visit to a gynecologist

menstruation (the period).



Investigation's...Treatment...

investigation's..... treatment.....

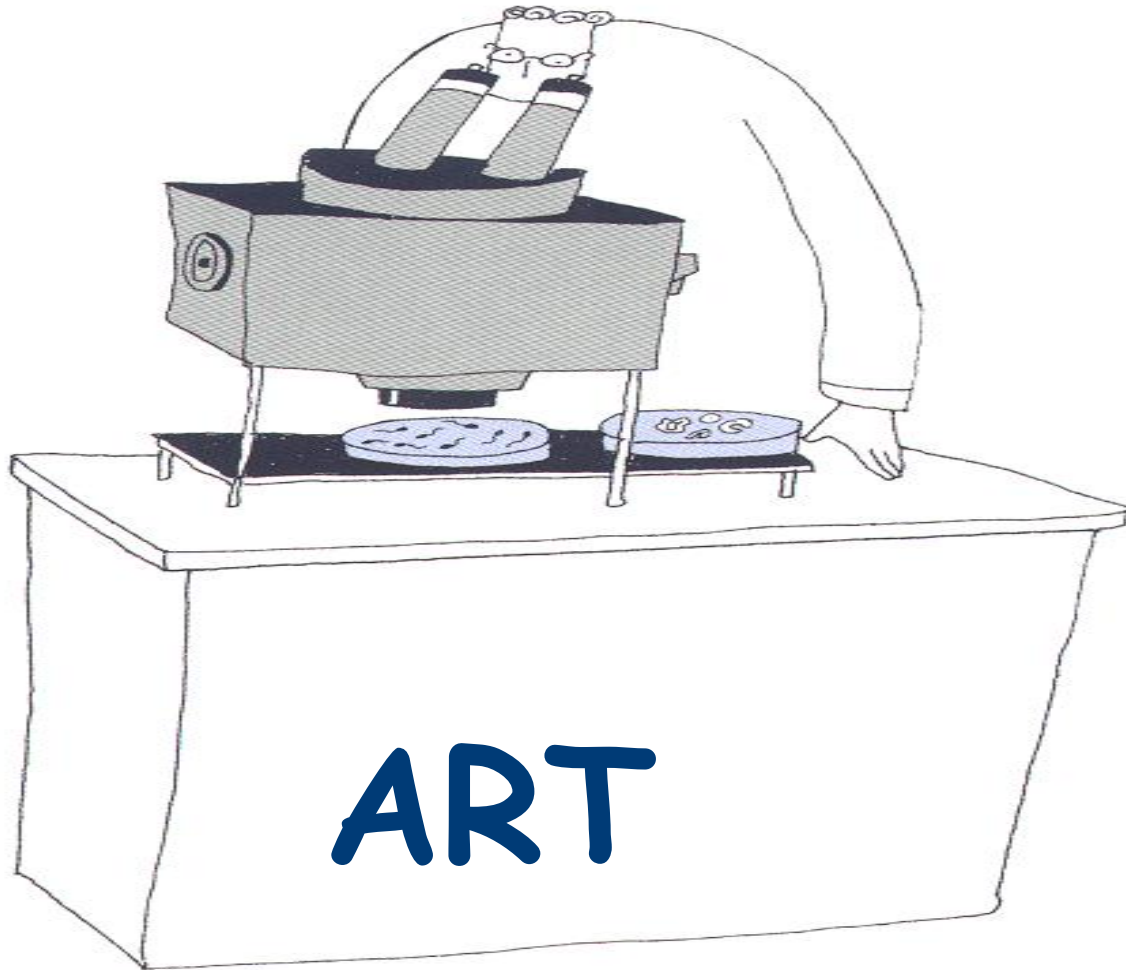
The man's treatment

- Empirical
- Medicines
- Surgery
- IUI
- ---
- ---

The woman's treatment

- Ovulation
induction
- IUI
- Surgery
- ----
- ----

IN VITRO FERTILIZATION UNDER THE MICROSCOPE

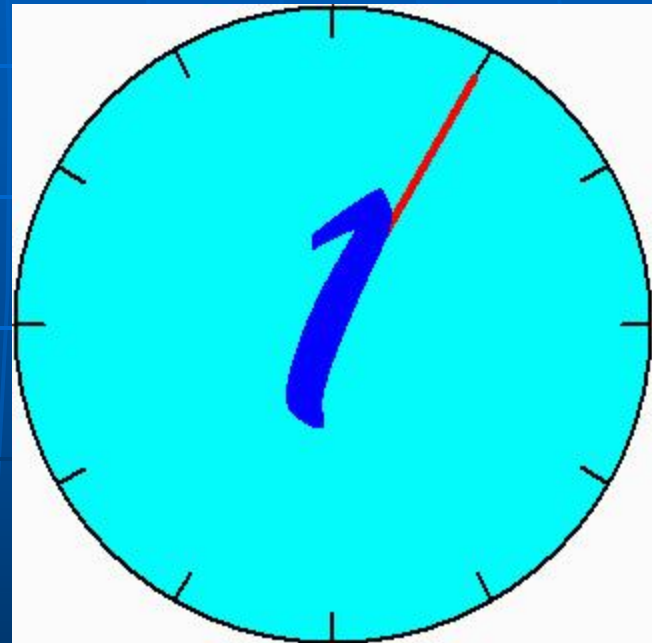


First indication

- Irreversible tubal damage:

First IVF baby

“Louise Brown”
was born to her
mother who had
bilaterally blocked,
tubes, where
oocyte retrieval
was done
laparoscopically.



Indications today

- Irreversible tubal damage
- Male factor infertility not amenable to empirical Rx or IUI
- Unexplained infertility not treatable by super-ovulation with IUI.
- Immunological factors
- Endometriosis
- Failed donor insemination

Extended indications

- Oocyte donation
- Surrogacy
- Embryo donation



Tubal infertility

Mode of treatment

Surgical or IVF

Surgical:

- **Reversal of sterilization**
- **Proximal tubal disease or cornual occlusion**
- **Fimbrial adhesions**

Tubal infertility

IVF

- Severe distal tubal disease
- Multiple tubal obstruction
- Dense pelvic adhesions
- bilateral salpingectomy
- Severe endometriosis
- Patients who do not conceive within one year of micro surgery

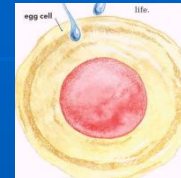
Male infertility

- OAT man syndrome
- Extreme or severe oligospermia
- Azospermia where only testicular sperms are available

Sperms per oocyte

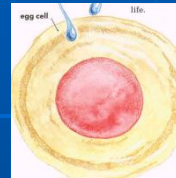
20 million sperms per oocyte

NATURAL CONCEPTION



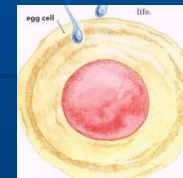
50,000 to 1 lac sperms per oocyte

CONVENTIONAL IVF



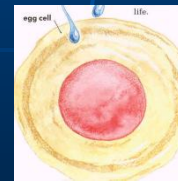
6 to 8 sperms per oocyte

**SUBZONAL
INSEMINATION (SUZI)**



**INTRACYTOPLASMIC
SPERM INJECTION (ICSI)**

1 sperm per oocyte



Abha M.

Unexplained infertility

- Couples with more than two years of infertility with no abnormalities on repeated investigation of
 - patency of genital tract
 - ovulatory mechanism
 - semen and coitus
 - those with minor abnormalities with inadequate explanation for their inability to conceive.

Immunological infertility

- Destruction of gametes by anti-sperm antibodies
- Prevent embryo cleavage and early development.

ART should bypass the early stages of fertilization and alleviate sub-fertility related to female immunological infertility.

ICSI should be able to overcome sub-fertility due to anti-sperm anti-bodies.

Endometriosis

Advanced stage endometriosis leading to distorted pelvic anatomy

STAGE IV (SEVERE)



PERITONEUM		
Superficial Endo	- > 3cm	- 3
L. OVARY		
Deep Endo	- 1.3cm	- 32
Dense Adhesions	- <1/3	- 8
L. TUBE		
Dense Adhesions	- <1/3	- 8
TOTAL POINTS		51

STAGE V (SEVERE)



PERITONEUM		
Deep Endo	- > 3cm	- 6
CULDESAC		
Complete Obliteration		- 40
R. OVARY		
Deep Endo	- 1.3cm.	- 16
Dense Adhesions	- <1/3	- 4
L. TUBE		
Dense Adhesions	- >2/3	- 16
L. OVARY		
Deep Endo	- 1.3cm.	- 16
Dense Adhesions	- >2/3	- 16
TOTAL POINTS		114

Endometriosis

Early stage endometriosis

- ❖ **Peritoneal fluid inflammation - increase in peritoneal macrophages, proteolytic enzymes & cytokines -leading to sperm phagocytosis, lower sperm motility and altered embryo development.**
- ❖ **Tubal dysfunction due to elevated Pg's, hampering oocyte, sperm and embryo motility.**
- ❖ **Alteration in cell mediated immunity.**
- ❖ **Luteal phase defects.**

Failed donor insemination

- Failure to become pregnant following 6 or more cycles of insemination in otherwise normal and healthy women.
- Social circumstances, distance and work commitment may warrant earlier ART.

Oocyte donation

- Absent or streak ovaries.
- Removal of ovaries following surgery radiation or chemotherapy.
- Premature ovarian failure.
- Poor responder on induction of ovulation
- Poor quality oocyte with repeated failed IVF cycles.
- Inherited genetic diseases transmitted through female.
- Habitual aborters due to chromosomal abnormalities in female

Surrogacy

- Surgically removed uterus
- Rokitansky Muller Kustener Hauser syndrome
- Severely malformed uterus congenitally or with fibroids
- Severe endometrial hypo-plasia or Asherman's syndrome.

Embryo donation.

- Female partner requiring oocyte donation with azo-spermia.
- Ageing couple over 40
- Repeated molar pregnancy



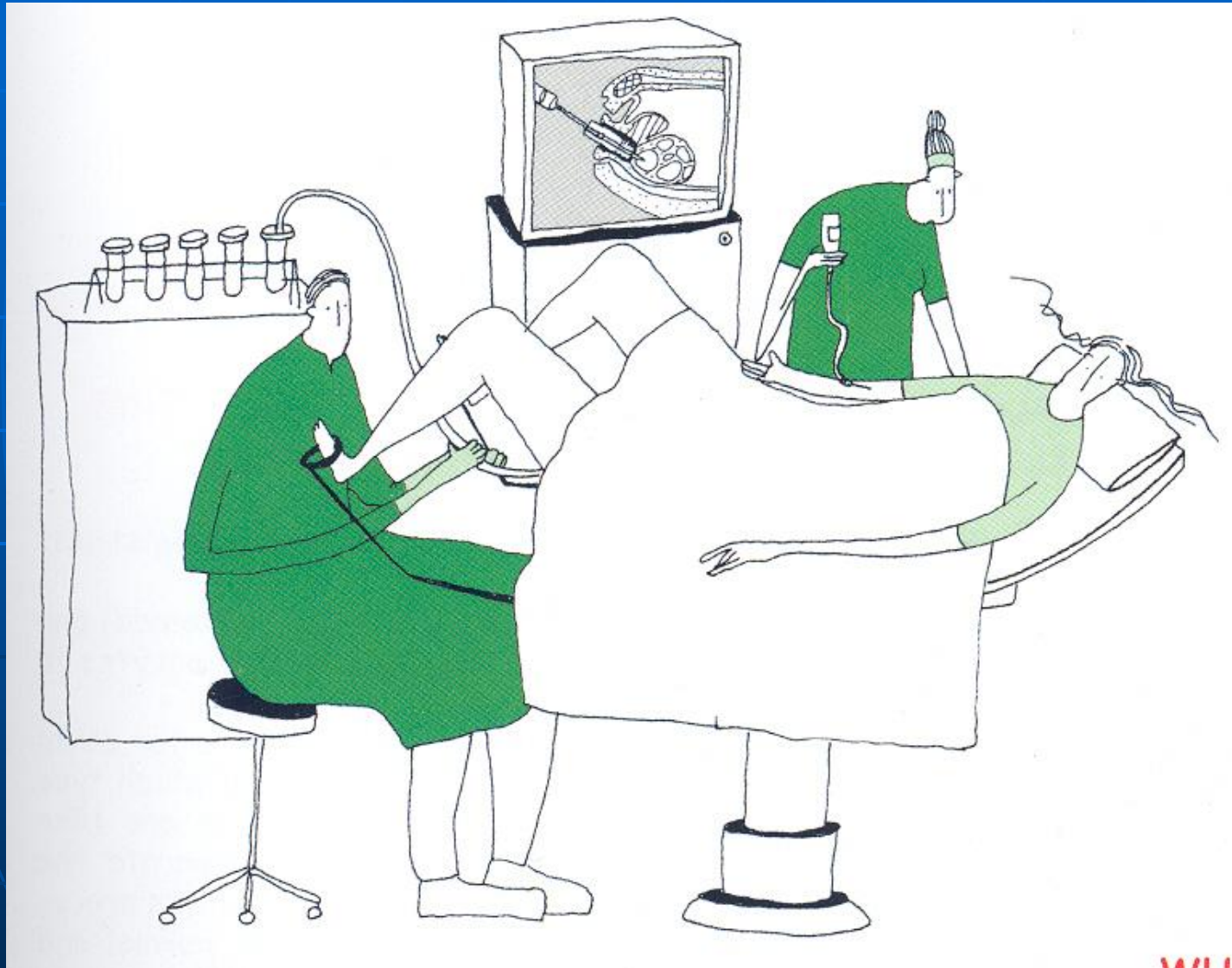
However conceiving a baby
the other way!

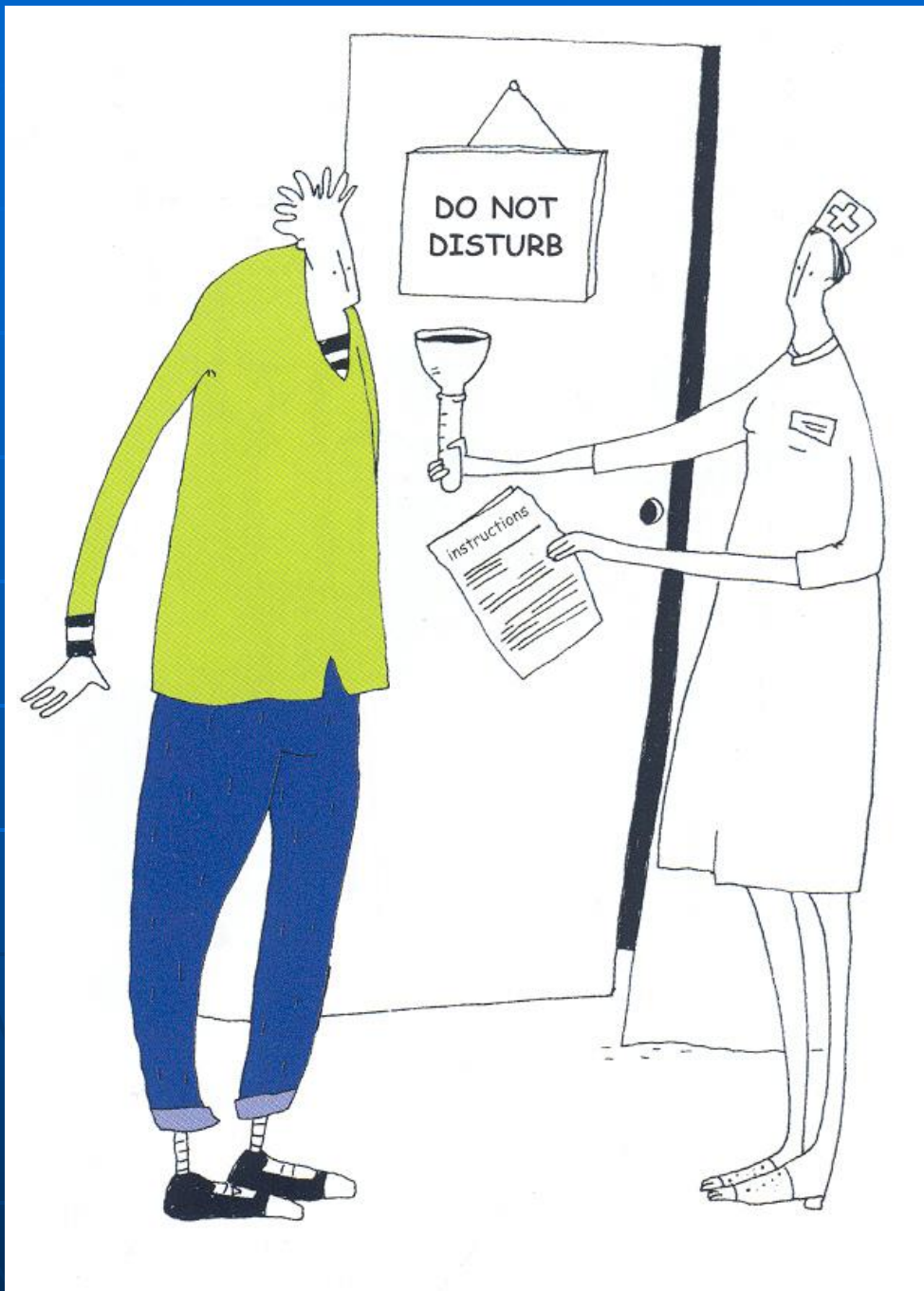
BY ART

is not without

PHYSICAL
OR
MENTAL STRESS

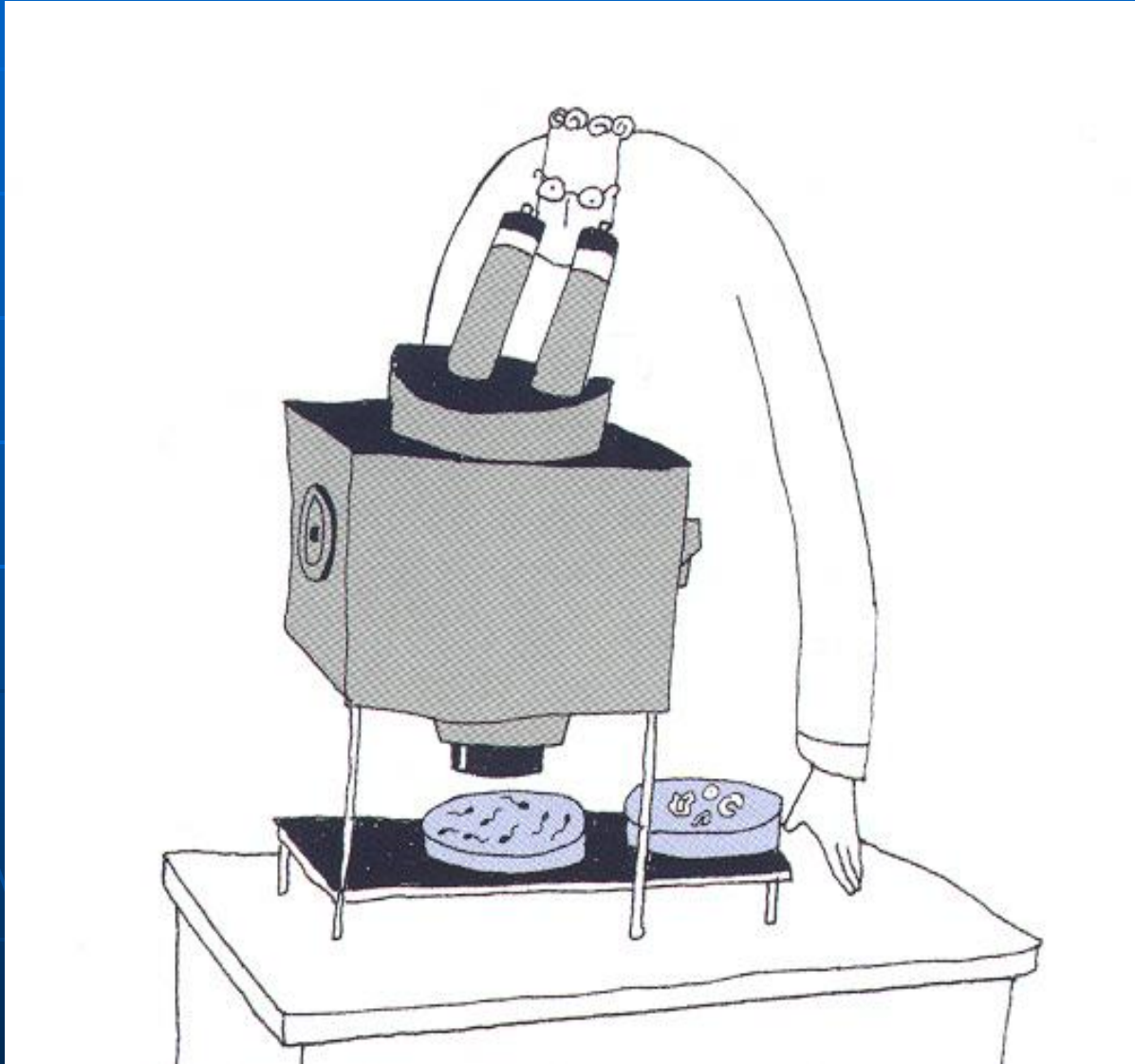
THE OOCYTE COLLECTION





THE SPERM COLLECTION

THE EMBRYOLOGIST 48 HOURS



The embryo transfer



Leaving
the
clinic
after
embryo
transfer

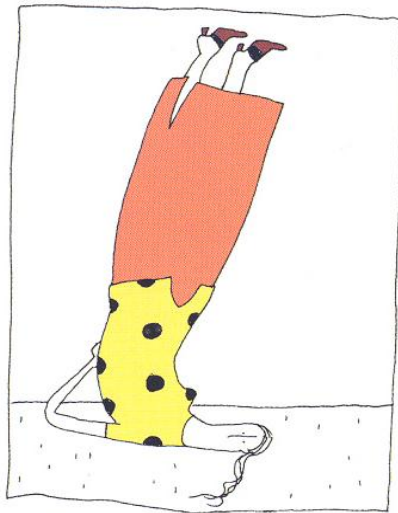


Leaving the clinic
after the embryo transfer...
*Don't drive so fast!
Watch out for potholes please!*

OH NO
I can't
carry
anything



*OH NO!
I can't carry anything...*



Trying to increase
the chances of implantation!
One never knows...

Trying
to
increase
the chances
of
implantation



The fear of menstruation.
Nothing... Phew!!!

The fear
of
menstruation

the pregnancy test



Two possible
results

success
or
failure

IVF at SGRH

■ Year	No. of cases	■ P/R	ICSI
■			
■ 1999	337	■ 30%	-
■ 2000	309	■ 33.5%	33.3%
■ 2001	366	■ 31%	42.8%
■ 2002	397	■ 31.3%	55.8%



JOY OF PARENT HOOD