

Doctor We Want a Baby

All you wanted to know
about subfertility



Dr. Chaitanya Shembekar

M.D., Dip. Endoscopy (Germany),
Dip. Lap., F.I.C.O.G., F.I.C.M.C.H.

Obstetrician & Gynaecologist

Laparoscopic Surgeon, IVF Consultant

Dr. Manisha Shembekar

Anaesthesiologist
M.B.B.S., M.D., D.A.

Dr. Chaitanya Shembekar

Om Women's Hospital

Test Tube Baby & Laproscopy Centre

"Pushpakunj"

Central Bazar Road,

Ramdaspath, Nagpur 440 010.

☐ Ph.+91-712-2454687, 6619554

☐ M : (H) 95521 77747

☐ Fax : +91-712-2454687

Website : www.chaitanyashembekar.com

www.omwomenshospital.com



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Beside Ahalya Mandir, Dhantoli, Nagpur

Mobile : 9370138370

OM WOMEN'S HOSPITAL



Women's Health Care Under One Roof
POST GRADUATE INSTITUTE & RESEARCH CENTRE



**TEST TUBE BABY &
LAPAROSCOPY**

DIRECTORS

Dr. CHAITANYA SHEMBEKAR

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Obstetrician & Gynaecologist

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Dr. MANISHA SHEMBEKAR

Anaesthesiologist

M.B.B.S., M.D., D.A.

Pushpkunj, First Floor, Central Bazar Road,
Near Hotel Centre Point, Ramdaspath, Nagpur-10

Facilities Available :

- IVF and ICSI
- IUI Laboratory
- Sperm Bank
- Laparoscopy
- Hysteroscopy
- Color Doppler Ultrasound
- Balloon Ablation Therapy
- Non Stress Test
- Colposcopy
- Painless Labour

About Hospital :

- 30 Beds, 7500 sq.ft. area
- Located in the Heart of city
- Spacious out patient & O.T. Complex
- Spacious AC rooms
- Economy rooms
- 24 x 7 Resident Doctor
- Physiotherapy and Nutrition Dept.
- In-house Pathology Laboratory
- Central Oxygen Supply
- Fully Computerised Hospital
- Cash less Insurance Schemes
- Affiliated to CECR for Research Work
- Medicine Shop

Q. How is infertility defined ?

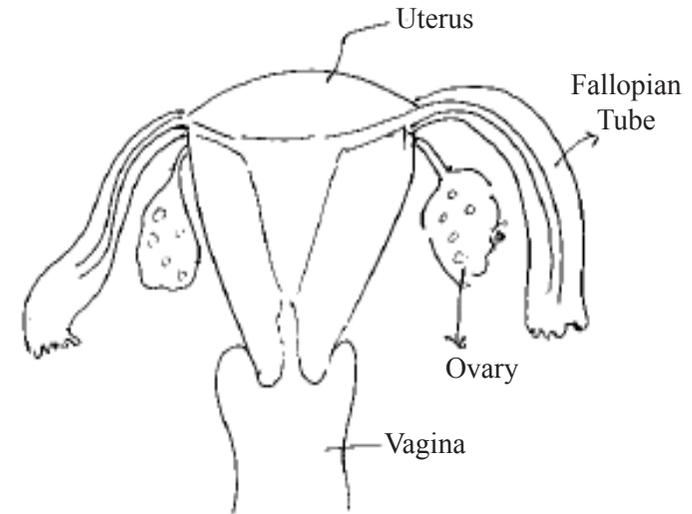
Ans. Inability to conceive within one year of marriage despite regular contact (inter course) is defined as infertility or subfertility.

Q. I am 35 yrs. old and I have been married since 6 months. Do I need to see a doctor if I am eager to conceive?

Ans. That's right! couples who get married at an older age are required to visit a doctor if they are unable to conceive within 6 months. The reason is time is running out for them and the biological clock is ticking.

Q. I have irregular menstrual cycles and I am overweight. My doctor has diagnosed it as PCOS (Polycystic Ovarian Syndrome). What should I do?

Ans. You should start treatment right away. It is better if you visit a doctor within 6 months of marriage.



Female Genital System

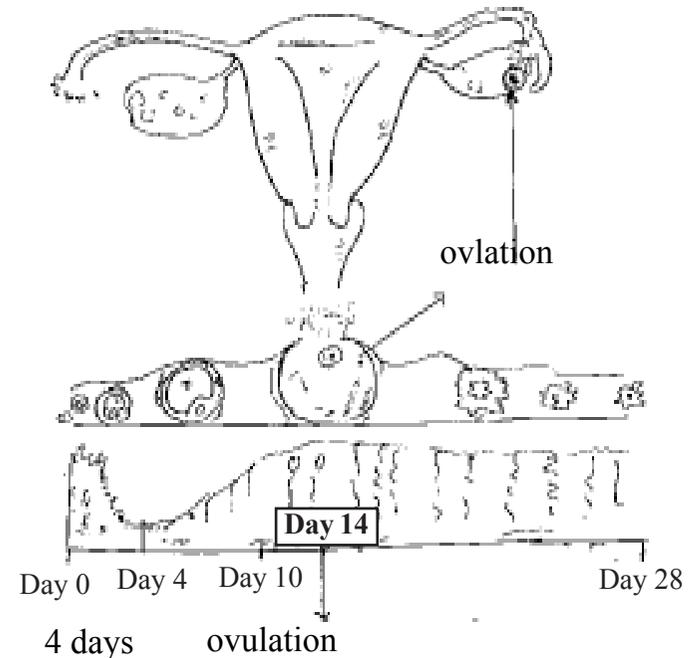
A lady should conceive within one year of unprotected intercourse but if she is more than 35 years old, she should go to a doctor in 6 months.

Q. What is fertile period?

Ans. Ovulation takes place on the 14th day of period, if the menstrual cycle is regular and of 28 days or on 16th day if it is a 30 day cycle. In short ovulation takes place 14 days prior to the next period; However, the day of ovulation may vary. Therefore those women who have a 28-30 day cycle should have regular contact from 10th day of the cycle for almost a week either daily or on alternate days. This one week period is the fertile period where chances of conception are more.

Q. The semen is expelled out after we have intercourse. Can this be the reason for inability to conceive?

Ans. Expulsion of semen after intercourse is perfectly normal. The semen is bound to spill over a bit but the sperms do swim up the vagina. However, keeping a pillow below the buttocks and lying down for 10-15 minutes may help.



**In 28 days cycle, 14th day is important.
It is a day of ovulation**

Q. What are the factors essential for conception?

- Ans. 1. Regular intercourse
2. Regular menstrual cycle
3. Normal weight; Body mass index is more important i.e. weight in kg/ height in m² BMI should be between 20 to 24.
4. Age < 35 years (One can try for conception upto 45 yrs.)
5. Normal Anatomy of uterus, ovaries fallopian tubes and vagina.

Q. My husband has a low sperm count. He is a smoker and consumes tobacco. Does it affect his sperm count. What is the normal count ?

Ans. Low sperm count is a common occurrence. Sperm count should be at least 20 million with good motility for fertilisation to take place. Tobacco is a definite deterrent and adversely affects the count as well as motility.

Other factors that may affect sperm count are infection, stress and alcohol consumption.

Some men suffer from impotency and are unable to have intercourse. If that is the case you should see a doctor immediately.

Q. What investigations are required to be done so as to find the cause of subfertility?

Ans. **Males** – Semen Analysis. If semen analysis shows no sperms or very low count then Serum FSH and serum Testosterone levels, Doppler Ultra sonography of Scrotum, testicular biopsy.

Females – Ultra sonography of pelvis.

Hormonal Assay is done on 2nd or 3rd day of period e.g. serum FSH, LH Estradiol, T3, T4, TSH, prolactin, AMH, Serum insulin, blood sugar, Serum B-12, Progesterone, Vitamin D3, antiovarian antibodies etc.

with the help of a canula and X-ray films are taken to visualise whether the dye has spilled into the peritoneal cavity through fallopian tubes.

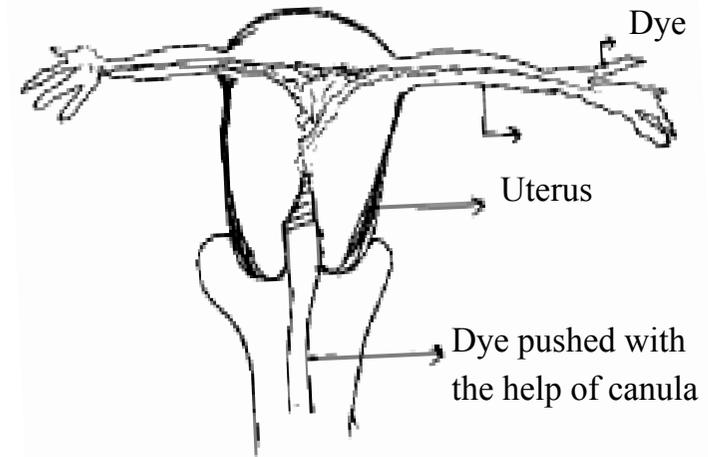
Tubal patency can be seen with the help of a laparoscope too.

Q. Is transvaginal sonography essential? I find it troublesome.

A. Ultrasonography is a very useful tool to know about the structure of the uterus and ovaries. Transvaginal route is better as it gives a very clear view of these organs.

Q. I have undergone all the investigations and my gynaec has advised me to do ovulation studies. Please explain.

Ans. If all the investigations that have been done are normal, doctor advises you to come on 10th day of period to do ovulation or follicular study. You may be given some

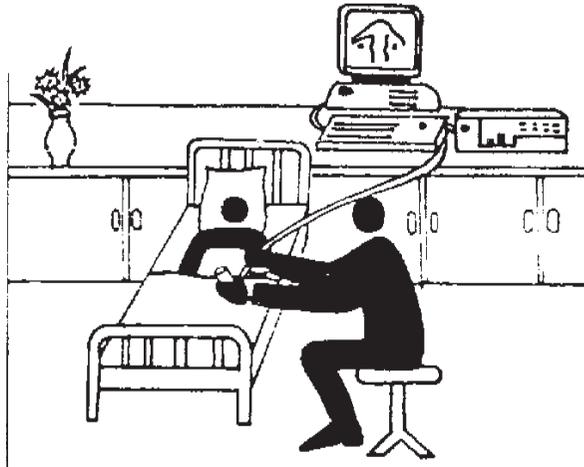


All these investigations are not mandatory in all women.

Some investigations are done empty stomach in the morning hours.

Q. What is tubal patency test or hystero Salphingo Graphy?

Ans. This test is done to ascertain the patency of fallopian tubes. It is done by radiologists. A radio opaque dye is instilled into the uterus



tablets to be taken from 2nd day of period or some injections too. Ovulation study gives the idea whether the ovaries are functioning properly and also the exact day of ovulation is known; The possibility of conception is increased manifold if the intercourse takes place around that time.

That means frequent visit to the clinic

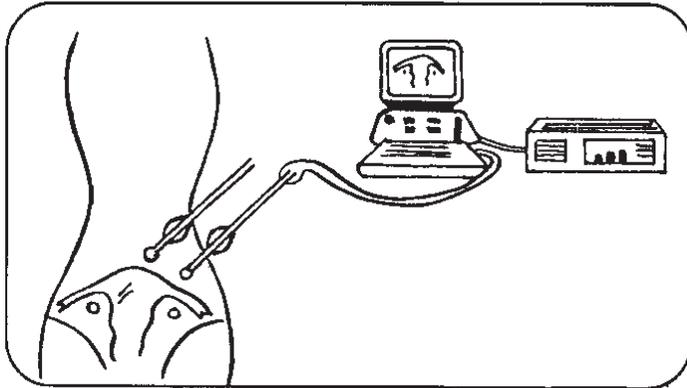
Troublesome but unavoidable!

Q. We have married since 2 years and have gone through a battery of investigations but in vain. Gynaec has advised us to get a laparoscopy done. The very idea of a surgery is scary. What should I do?

Ans. It is important to do laparoscopy at this juncture. No need to worry about the surgery. It's a day care procedure done under anaesthesia. A laparoscope is introduced into your abdomen through a key hole incision (cut) given at your navel. It is a "see and treat" policy. The doctor gets a view of uterus, ovaries and tubes. Any swelling over ovaries or adhesions are taken care of there and then. A dye put through the vagina is seen to spill through both the tubes and the status of tubes is also known. In addition to it a telescope is

put inside the cavity of uterus to find out whether the cavity is adequate and presence of any polyp or infection if any.

- It is done either immediately before or after the menstrual cycle.
- The patient has to take light meals in the evening and tablets are given to be taken at night (Sedatives and laxatives)



- The patient is required to get admitted early in the morning. The procedure takes 30-60 minutes.
- patient is discharged on the same day in the evening.
- Patient can drink water after 6 hours and take light food in the evening.
- It is a suture less surgery but you are required to visit one week later.
- Laparoscopy definitely helps in conception.

**Laparoscopy is definitely helpful
Be fearless and get it done!**

Q. What is IUI ?

Ans. IUI stands for intrauterine insemination.

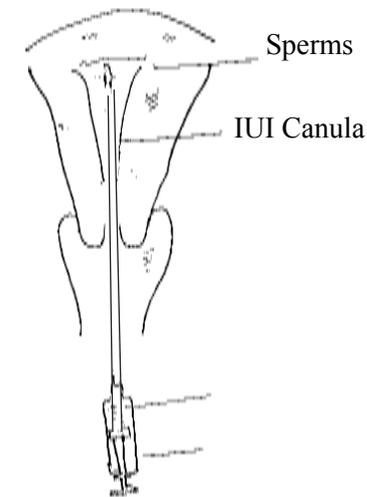
Semen sample is processed in the laboratory and put inside the uterine cavity with the help of a fine canula.

Q. Is it true that the semen used in IUI belongs to somebody else and not the husband?

Ans. IUI is of two types.

1. IUI-H (Husband) wherein the semen sample of husband is processed and used for IUI.

2. IUI - D (Donor) wherein the semen sample is obtained from the sperm bank. This is used only if husband is azoospermic i.e. there are no live sperms in husband's semen. I must add that we do not know the identity of the donor but the sample is tested for HIV and other infectious



diseases. Before inseminating a donor semen, height complexion and blood group are matched with that of the husband. Consent of both husband and wife is mandatory for this procedure.

Q. Which patients need IUI?

Ans. It is usually done in cases of unexplained infertility or if the sperm count is less than normal but more than 10 million, women having endometriosis or PCOS. It must be noted that IUI does not help if the tubes are blocked or sperm count is very low.

Q. Please explain the procedure of IUI.

Ans. If you have decided to get IUI done, you would be given some tablets to be taken from 2nd or 3rd day of periods some patients are given injections too.

You have to visit the clinic from 10th day of cycle for ovulation studies either daily or alternate day.

On USG checkup, when the size of a dominant follicle reaches 18-20 mm. Inj. HCG is given to help rupture of follicle and IUI is done 36-40 hours later.

Q. Is the procedure painful?

Ans. Not at all. You can take usual meal (not required to be empty stomach)

Abstinence prior to the day of IUI helps to increase the count.

The procedure does not require anaesthesia.

A fine canula is used to put the processed semen into the uterine cavity.

Lie down for 15-20 minutes after the procedure.

Q. Shall I need bed rest after IUI?

Ans. Again the answer is “no”. You can go about your usual routine and continue your job too. But you must take the medicines regularly. Having regular intercourse for a week later may be helpful.

Q. Would I have abdominal pain after IUI?

Ans. Slight pain is experienced by some women and it can be taken care of by taking pain killers like Tablet Crocin or Tablet Spasmelan.

Q. How many times should we get IUI done?

Ans. Usually IUI should be done 4-6 times but if conception does not ensue, other treatment modalities must be considered.

IUI is one step in the treatment of subfertility. And can be tried before going for IVF.

TEST TUBE BABY

In Vitro Fertilisation – IVF

Q. What are the indications of IVF?

A. There are many indications to do IVF?

It is upto the treating doctor to take the decision to do IVF.

Certain definite indications are –

1. Block in the fallopian tubes.
2. Very low sperm count < 10 million.
3. However, there are many other situations where decision to go for IVF may be taken in the course of treatment.

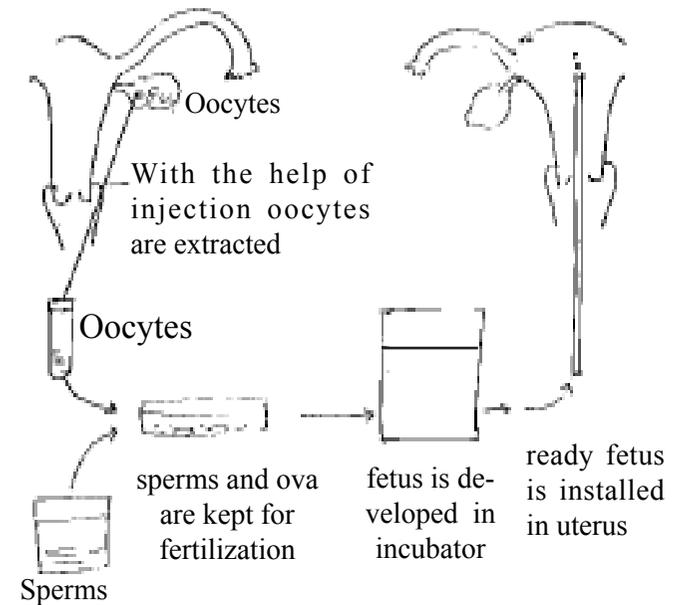
□ Test tube baby has an amazing history behind it. Dr. Edward and Dr. Steptoe kept working hard day and night for almost 4-5 years. Finally the auspicious day arrived when world's first test tube baby was born. The day was 28th July 1978 and the baby was named Louis

Brown. And exactly 30 years later i.e. in 2008 Louis Brown conceived naturally and had a baby. Thus life came a full circle and it was proved that the baby born by this method is quite normal.

The search in the field went on and a procedure called ICSI (Intra cytoplasmic sperm injection) was developed.

It proved to be a boon for those who had a very low sperm count. Each and every sperm can be utilised in this method. The technique of freezing embryos developed and the time has come where oocytes may be freezed now.

- Q. Which tests do I need to undergo before going for IVF?
- A. Complete work up before starting the actual procedure is a must. Some hormonal assay described earlier, hysteroscopy to see the uterine cavity from within, husband's



**Test Tube Baby (IVF)
In Vitro Fertilisation**

semen analysis and some other blood tests are advised.

Q. I have heard that I will have to take injections daily. That really scares me.

Ans. Do not panic. Have you ever seen a diabetic patient taking his own insulin injections daily? It is as simple as that. The injections are given 20 days prior to the procedure with a fine needle. Best thing is you can take them at home either in the thigh or abdomen. Another injection is (HMG / FSH) added a week later to be taken for almost 12 days. But those are not painful.

With recent advances, number of injection is getting reduced and a day may come where they will be replaced by tablets.

Q. I reside in another town. How can I go

about the treatment, as I can't come everyday?

Ans. To begin with you have to visit the doctor after 5-7 days of the first visit but you may need to come for checkup every day or on alternate day as the treatment progresses i.e. for last one week.

Q. Please explain the exact procedure of IVF.

Ans. As told earlier injections are given to form 8-10 oocytes or eggs. This is called superovulation. When the size of follicles is about 18-20 mm. Inj. HCG is given and exactly 35 hours later the oocytes are taken out with the help of ultrasound. This procedure is done under anaesthesia.

Preparation to be done on the day of procedure.

- Reach the hospital at the time given empty stomach. Do not take fluids or solids not even water.
 - You would be admitted and discharged on the same day
 - Eggs are retrieved under anesthesia with transvaginal USG with the help of a needle.
They are kept in a petri dish.
 - Your husband would be asked to produce the semen sample around that time.
 - The Ova and sperms are kept together to fertilize.
 - You will be awake 15 minutes later.
 - You can have light meal in the evening after discharge.
 - Please ensure that you take all the prescribed medicines.
-

- Doctors would continue to work in the laboratory.
- The petri dish containing ova and sperms is kept in an incubator.
- Incubator is a gadget which maintains the required temperature and environment congenial for fertilisation to take place. It is the most valuable gadget of all.
- A day later, doctors would check whether fertilisation has taken place. You are not required to go to the hospital.
- On day 3, 4 or 5 (as per your doctors advice) the embryos thus formed are transferred inside the uterus.

Preparation for the day of transfer.

- You can have usual meal and take prescribed medicines.
 - Be there at the time given to you.
-

- It's a simple procedure.
- Does not require anaesthesia.
- You should have urinary bladder full.
- 2 or 3 embryos are transferred using a transfer catheter.
- Lie down for an hour and go home.

Q. Is bed rest essential after the procedure?

Ans. Not at all. But do not exert too much.

Q. How soon can I know the result?

Ans. 14-15 days after the embryos are transferred urine pregnancy test is done to know whether conception has taken place. A blood test (Beta HCG) is confirmatory. Do not stop medicines until you get the reports and see your doctor for further advice.

Q. What is the probability of conception in IVF.

Ans. Around 30-40%

Q. How many test tube baby cycles should be

performed.

Ans. One can try for 3 cycles but people even go for 4-6 cycles.

Q. My first IVF cycle has failed when can I go for the second cycle ?

Ans. It is advisable to wait for 3 months before you start the next cycle.

Q. I have heard a lot of things about IVF eg. the baby is not yours, semen may not be your husband's etc. Is it true!

Ans. That's not true! However, in certain cases, donot oocytes or donor sperms may have to be used but the doctors would take your consent before doing it. You sign a consent form before the procedure. The procedure is written clearly on the form and you should go through it before signing it. But don't worry, they won't keep you in dark over such an important issue. Have full faith in your doctors and acquire all the information

you want from them before you venture into the procedure.

Q. I am 42 years old. I have been told that my ovaries are unable to produce eggs any more. But I long to have a baby of my own. Is there a way out?

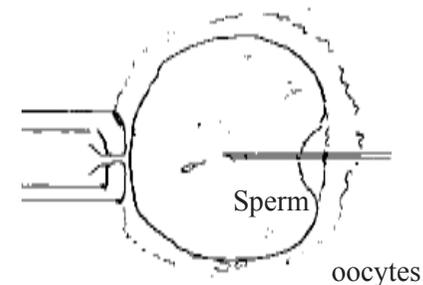
Ans. After doing the hormonal assays like serum FSH, LH, AMH, the functioning capacity of the ovaries can be known. If it is evident that the ovaries can no longer produce oocytes, then you can get oocytes from a donor. This is called ovum donation. The donor can be somebody known to you or related to you. She should be less than 35 years of age, has children of her own and willing to help you out. Keep in mind that the donor should not be related to your husband.

When you find such an angel, she would be given injections and her oocytes

obtained on the predetermined day. These oocytes would be kept with your husband's semen to fertilise. The embryo thus formed would be transferred in your womb. Thus you can realise your dream of bearing a child.

Q. What do you mean by "Surrogate mother?"

Ans. Recently film star Aamir Khan and Kiran Rao had a baby through this method. Surrogacy has been legalised by Indian constitution. If a lady has congenitally



With the help of syringe sperms are injected in oocytes

ICSI
(Intra Cytoplasmic Sperm Injection)

small uterus or if there is some other abnormality or uterus is absent, then uterus of another lady is used to implant the embryo. It must be noted that the oocytes & sperms are obtained from the couple desiring the child. Surrogate mother is only lending her womb for the embryo to grow. The child will legally and biologically belong to the couple. Thus overcoming the obstacles, you may have a baby of your own. However, the procedure should be done through proper legal channels and affidavit should be signed by both the parties.

Q. My husband's semen analysis shows no spermatozoa. He underwent a testicular biopsy as advised by doctors which shows that sperms are formed in the testis but do not come out as the tube is blocked. What is the remedy?

Ans. When the semen analysis shows no sperms, a biopsy of testis is performed to ascertain whether sperms are being formed. If sperms are found, it means that the tube (Vas deferens) is blocked hence the sperms are unable to come out. There are two options in such case. First one is to operate upon the tubes to remove the blocked part. But the results aren't too encouraging.

Other option is to do PESA (percutaneous epididymal sperm aspiration) wherein the sperms are taken out from the testis with a needle. But these sperms are very few in number and require a process called ICSI to fertilise the ovum. That means each sperm is injected into an oocyte using a specialised instrument called micromanipulator. Thus you can have a biological child of your own. This process is called PESA-ICSI.

Q. What is ICSI?

Ans. ICSI stands for intracytoplasmic sperm infection. A specialised microscope called micromanipulator is required to do ICSI. It is usually indicated where sperm count is < 10 million or motility of sperms is low. A sperm is directly injected into the oocyte with the help of micromanipulator. This technique has definitely improved the result of IVF.

Q. If only 2-3 embryos are transferred then what happens to the remaining ones if 10-12 embryos are obtained?

Ans. In such a situation, we have a facility to freeze extra embryos. It is called cryopreservation. If conception does not take place in this current cycle, the frozen embryos can be used later. The best part is the procedure becomes much simpler as number of injections is drastically reduced.

Q. Can I be assured of having a male baby if I go for IVF ?

Ans. I am sorry but you should know that trying to find the sex of the unborn baby is punishable under Indian law. 2-3 embryos are transferred and there is no method to find out the sex of the baby. Please do not discuss such issues with your doctor as asking or telling the sex of the child is an offence. The maximum punishment given to the culprit is 5 years of rigorous imprisonment.

Q. Are there any side effects of IVF?

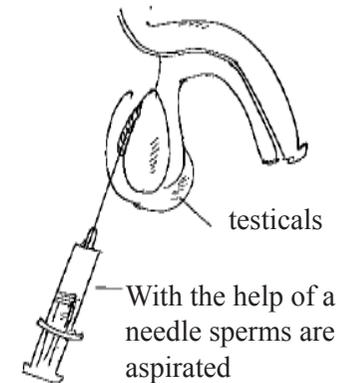
Ans. 1) Multiple Pregnancy - Since 3-4 embryos are transferred chances of twin or triplet pregnancy is increased.

2) Ovarian Hyperstimulation Syndrome -

It is one of the side effects of the injections given during IVF. The reason is formation of too many oocytes which may

lead to abdominal distension, feeling of heaviness, vomiting, difficulty in breathing, abdominal pain etc. If any of the above symptoms are experienced report to the doctor immediately. You may be admitted and treatment will be given.

PESA Percutaneous epididymal sperm aspiration



Q. Can this condition - OHSS be prevented?

Ans. If you follow certain instructions chances of OHSS can be prevented or minimised.

1. Drink plenty of water.
2. Take protein - rich diet e.g. white of eggs, Soyamilk, Sprouts, Rajma, Almonds etc.
3. Do not exert yourself, take adequate rest.

Q. I have been trying since quite a few years and I have not conceived yet. I feel very

