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Eye Clinic

PARANJAPE EYE BANK

CATARACT

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CATARACT

Cataract matures with age in many people and they cannot see properly. Such a matured cataract is to be removed surgically.

To address the frequently asked questions like- What is a cataract? What kind of treatment was available earlier? Are we required to use thick glasses after removal of cataract? What improvements our scientists and doctors have brought about to avoid inconvenience caused due to thick glasses etc. We have written this article in a question-answer form for the easy understanding of our patients. This article is based mainly on the experience of the experts from our hospital. The advice given to different eye-patients may differ from the one given in this booklet. The information contained in this booklet may change with time.

Even after reading information given below, if any queries or doubts still remain unclear, the cataract patient must talk to the eye specialist.

Q-1 What is a cataract?

A-1 Human eye has a transparent lens like in a camera. A clear image of objects is formed on Retina of eye due to this lens. If the lens in camera gets deteriorated we cannot get a clear photograph, similarly when transparent lens in the eye becomes opaque/translucent, a person is unable to see clearly. This condition is called as cataract.

Fig-1

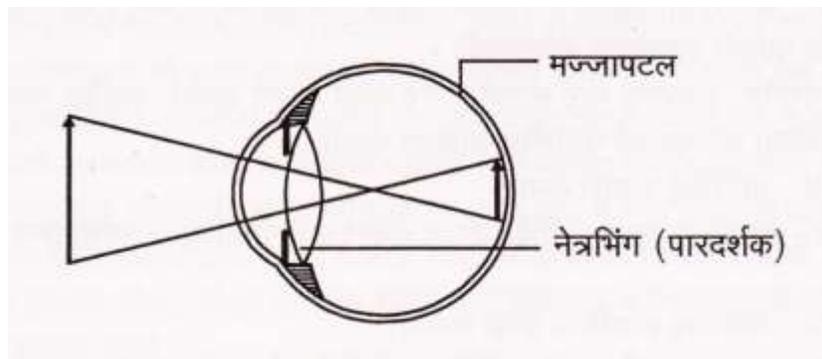
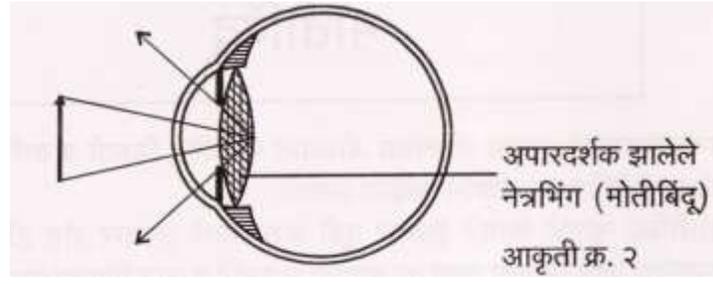


Fig-2



Q2- What are the symptoms?

A2- i) Vision of a patient becomes blurred. If he is using reading glasses due to age factor, he can read without glasses. He gets a misconception that his eye sight is improving, which pleases him. But in reality, it is the first and an important symptom of setting in of a cataract.

ii) While looking at the moon, he sees multiple images, while at the bright light he sees rainbow coloured rings around it, his eyes get dazzled. One must know that

such rainbow coloured rings are symptoms of cataract.

iii) His vision deteriorates gradually and the patient can barely see light. Such a condition shows maturity of a cataract.

Q3- Why does cataract develop?

A3- As a matter of fact, even the scientists and eye-specialists have not yet understood the exact reason for it. However, some of the likely reasons those are known are as follows-
Ageing, diabetes, eye injury etc. Very rarely congenital cataract can be observed in children.

Q4- What is the treatment for cataract?

A4- Removal of cataract surgically is the only common treatment for it.

Q5- When the cataract should be operated upon?

A5- Earlier patients had to wait till cataract matured. But due to improved methods of surgery and also depending on the requirement of patient, cataract surgery can be performed at any stage.

Q6- Is there any alternative to surgery for cataract?

A6- Worldwide efforts are on to find a medicine on cataract but a guaranteed remedy has not been found so far.

Q7- Under what kind of anaesthesia this surgery is performed?

A7- Generally, the surgery is performed under local or topical anaesthesia by putting a few drops in eye or by an injection. The patient is completely awake during the surgery. In case of children, the surgery is performed under general anaesthesia. Sometimes patients having unsteady mind are also administered general anaesthesia.

Q8- For how long does the patient have to lie down after the surgery?

A8- Earlier, patients were made to lie down after the surgery, not allowing him to move his head, his both eyes used to be covered for eight days. As the techniques in surgery improved, the duration to lie down reduced. These days patients

undergoing surgery performed with the help of a microscope and can walk from operation table to his bed in the hospital. He is not compelled to lie down. A matured patient who can strictly follow doctor's instructions is allowed to go home.

Q9- Are there any specific advantages of microsurgery?

A9- Our eye is the most important and delicate organ. Therefore eye surgery is to be performed intricately and with utmost care. In the microsurgery the eye is magnified fifteen times i.e. one portion of the eye appears as large as 15 times. It helps in taking a section or while suturing or in treating the cataract intricately. The suturing thread used in this surgery is as thin as, one-fourth of human hair. It cannot be seen with naked eyes, you need a microscope. The surgical instruments too are quite delicate. Due to these precisions the surgery too is precise and delicate. The scar after the surgery is minute and vanishes after a few days. All these things help in getting eye restored, as it was earlier. The chances of post- surgery complications are minimal.

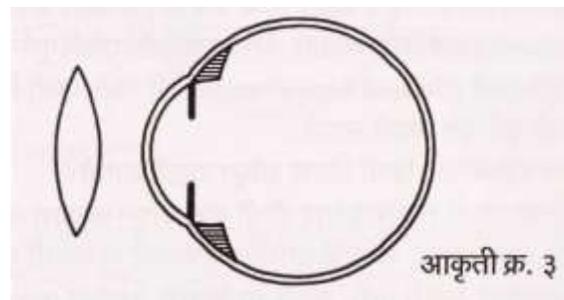
Q10- What is necessity of using spectacles after the surgery?

A10- Cataract is a translucent/opaque lens in an eye. (See fig-3) This lens is removed during the operation and in the absence of a lens; the patient is unable to see. Therefore, thick glasses with (+10 to+12) higher power are required by the patient for clear vision.

Q11- What are the precautions to be taken after the surgery?

A11- The following precautions should be taken-

Fig.-3



- i) There are no restrictions on food as such but dietary regimen must be followed in case of other ailments.
- ii) Medicines prescribed to be taken for one month.
- iii) Visit the doctor on the day appointed for.
- iv) Start using thick lens glasses after one and a half months.
(In absence of Intra Ocular Lens)

Q12- Is cataract surgery performed with LASER these days?

A12- Cataract cannot be removed by LASER but in case of 5% to 10% patients, the posterior capsule opacity developed after the surgery can be dissolved by LASER. Such a LASER apparatus is a boon for such patients, since another surgery is totally avoided. Still, some patients are advised surgery to remove posterior capsule opacity.

Q13- What happens when matured cataract is not removed surgically?

A13- The cataract gets over matured, pain in the eye develops and possibility of complete loss of eyesight persists. Under such circumstances, it is necessary to perform operation immediately. However, full restoration of eyesight still remains doubtful.

Q14- What is advisable when one eye develops cataract and the other has perfect eye sight?

A14- The matured cataract has to be operated upon. To restore the vision in the affected eye, if spectacle with thick glass is used for that eye then, the images are seen one and a half times bigger than those seen from the eye which is not operated upon. Thus there is no coincidence of images and patient complains that he sees two images of the same object. This happens because the lens of the spectacle is at a distance of one inch farther from the natural lens of the eye. Therefore, all images appear larger and double. Also the field of vision also lessens due to thick lens.

Q15- Is there any remedy to this?

A15- The remedies are as follows-

- i) Earlier on either the unaffected eye(which is not operated) used to be kept covered and a thick lens spectacle was used only for the eye operated upon ; or no spectacle was used for the eye operated upon and the other normal eye was used . Thereby both the eyes were not used simultaneously. Hence the correct judgement of distances of objects was not possible, resulting into accidents.
- ii) Contact Lens-

Fig 4-

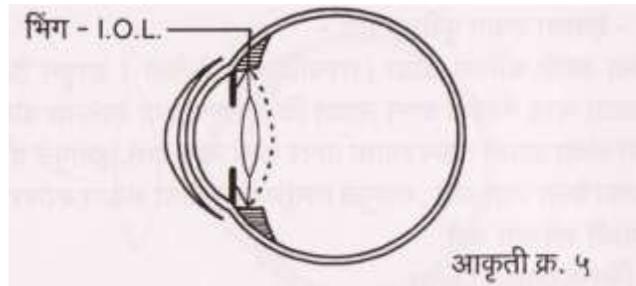


In this case, the lens is fitted as close as possible to the eye so that the problem of sighting double objects is reduced considerably. Image also gets reduced in size and it appears as it would have appeared naturally.

However, lens is to be removed and fitted everyday. It is a very small and a delicate lens, therefore aged patients find it inconvenient. They avoid using it and then it remains idle.

- iii) Instead of fitting the lens on the eye if it is fitted inside, at its natural place then no inconvenience occurs. Such type of a lens is called – **'Intra Ocular Lens Implant' (I.O.L.I.)**. (See fig - 5)

Fig –5



Q16- Which type of patients can be operated upon this way?

A16- This operation can be performed almost on all patients of cataract. In case of some patients, this type of an operation is neither necessary nor advisable. Your eye specialist will take the appropriate decision on whether to fit I.O.L. or otherwise.

Q17- What are the benefits derived from this operation?

A17- The benefits derived are-

- i) You get vision without using spectacles.
- ii) While the field of vision gets reduced due to thick spectacles, whereas it remains normal due to implant.
- iii) Farmers, players, drivers, mechanics and alike find it difficult to function normally with the thick lens spectacles. Their capability to work comes down. Since this type eye lens restores the vision, it is a boon for the patients mentioned above. They can carry out their work with full capacity. The I.O.L. number for the same is found out with the help of ultrasound machine. This number can vary with a tolerance of ± 2 . (The patient may have to use glasses with + or - 9 number or even more after the surgery. A patient should enquire about it hence this has been specifically mentioned here).

Q18- What extra precaution is to be taken after the surgery?

A18- nothing special, the only precaution to be taken is to consult your eye specialist in case of any problem.

Q19- Are there any risks related to the operation?

A19- This is an important question; hence an elaborate answer is given. It may be specifically mentioned here that there is no intention to frighten the patients or their relatives. There are 2 to 5% chances of failure in any medical treatment; be it a surgery or treatment of ordinary fever and cough. There could be a possibility of the following-

- i) Reaction to a medicine
- ii) Injury to eye while administering anaesthesia

- iii) Clotting of blood on exterior or interior portion of the eye.
- iv) Oozing of eye jelly during operation.
- v) Though decided earlier, inability to fit I.O.L. in the eye.
- vi) Possibility of requirement of spectacles with a power of ± 3 or even more after the surgery, than that was contemplated earlier.
- vii) Opening of wound, breaking of sutures.

- viii) Pus formation in the wound due to infection. Some times the infection cannot be controlled by medication and the eye has to be removed.
- ix) Ailments like detachment of retina or Cystoids Macular Edema may occur after later.
- x) Fluctuation in blood pressure.
- xi) Posterior Capsule Opacity occurs in 10% of patients. Consequently, partial loss of sight results. In such cases, it is necessary to remove it either by Nd.YAG LASERs or by surgery. Such a condition occurs in 80% of children who have undergone the cataract operation.
- xii) Apart from these, there are known/unknown risks
- xiii) Increase in previously existing heart problem or contraction of new ailments, diabetes, asthma or any other physical ailment may occur.

This booklet mentions about usage of medicines, check-ups, to use spectacles etc. which is based on experience. It may vary from patient to patient.

Due to all the above, there is a possibility of death of a patient, total blindness of an eye or requirement of removal of an eye by operation.

Q20- What is a cataract operation without stitches?

A20- This is a new technique. It is called as Ultrasonic Phako Emulsification. In this method, a very small incision is taken in the eye and a needle like probe is inserted through it. The ultrasonic waves are passed through the probe inside the cataract. This initiates a process of softening of cataract; with the help of the same probe, it is removed from the eye. In this manner the entire cataract is removed. For this process an incision of mere 1.6mm length is required. Since the incision is taken in a peculiar manner, there is no need to put stitches.

After removing cataract by 'Phakko Method, I.O.L. is fitted in the eye. Now, even foldable I.O.L.s are available. Patients can discuss about the same with their eye-specialists.

Q21- What are the advantages of this method?

A21- Advantages are plenty, as enumerated below-

- i) After operation eyesight is restored early.
- ii) Since there are no stitches, there is no pricking. The local reaction is minimal.
- iii) Injury to endothelial cells, responsible for keeping iris transparent is less hence no problem with the iris.
- iv) Eyesight of a patient returns to normalcy.
- v) Chances of requirement of cylindrical number after the operation are less. Let your eye-specialist decide whether to carry out 'Phako' surgery or otherwise. To use this method, an expensive machine and its probe are required. Further, special training and skill is necessary. Therefore this type of surgery is costly.

Q22- What are the types of lenses?

A22- There are many types of indigenous as well as imported lenses available. But from the point of view of vision of eye, there are two types of lenses.

- a) Monofocal and
- b) Multifocal

Monofocal- This lens has single power. This power is used for distance vision. Spectacles are used for near vision.

Multifocal- The lens has rings with varying progressive power. This lens provides distant as well as near vision. A spectacle for near vision is not required. The pre-forties eyesight can be brought back due to the design of this lens. By using this lens, you may have to use a small power for distant vision but 95% of patients do not need spectacles.



Q23- How much do these lenses cost?

A23- True, this question is but natural. Multifocal lenses is expensive and monofocal lenses are economical. There is a vast difference in the prices of these lenses, as the multifocal lenses have come recently. Earlier, every patient was fitted with monofocal lens, they had to use spectacles for near vision. However, there

is an advancement due to multifocal lens.

Q24- Which lens should we use?

A24- Patients do face this dilemma. Both type of lenses are excellent. They both help in

imparting good eyesight. Lens is fitted for clear vision. Restoration of vision is important criterion hence, selection of the lens could be as per patient's requirement.- for example, If you want to travel to a place, you can reach there by bus, rail or by air. You could decide the mode of transport as per your choice. Reaching to that place is more important. Similarly, restoring clear vision is important, select a lens of your choice.

To update information in this booklet, a mention of this new method was necessary.

**Some Ultramodern Treatments and
Other Facilities Available in the Hospital**

1. Examination rooms equipped with slit lamps, Kerameter, indirect ophthalmoscope etc.
2. Squint Clinic- Treatment for squints and other accompanied sight defects, using Synaptophore, CAM Stimulator etc.
3. Ultramodern Operating Microscope.
4. DIOD LASER- For treatment of retina due to diabetes and other ailments.
5. Ultrasound machine to decide ' Intraocular Lens Implant Number'
6. Phako Emulsification machine required for removal of cataract through a small incision.
7. Vitrectomy machine.

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