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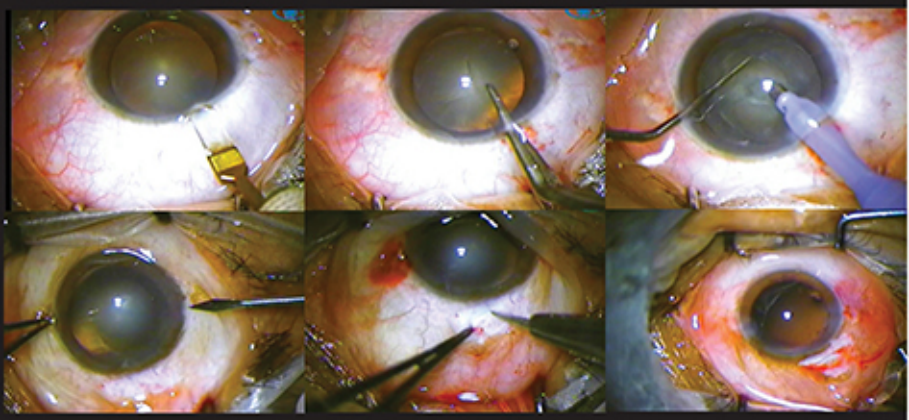
Jaypee's Video Atlas of PHACO Instruction Course



Albrecht Hennig • Sanjay Kumar Singh • Lila Raj Puri

JAYPEE

INCLUDES 4 VIDEOS
IN TWO DVDs
DURATION 2 HOURS
(APPROX)



Contents

DVD – 1

Video 1 Introduction (9 Minutes*) 1
- PMMA vs Foldable IOL 2
- Magnification 3

Video 2 'Stop and Chop' Technique (18 Minutes*) 4
- Epinucleus and Cortex Removal 6
- How to Avoid Mistakes Commonly Done by Beginners 7

DVD – 2

Video 3 'Chop' Technique (40 Minutes*) 10
- Normal Cataract 12
- Soft Cataract 12
- Hard Cataract 13

Video 4 Challenging Situations (43 Minutes*) 14
- Subluxated Lens 14
- Capsular Problems 15
- Difficult Cataracts 15
- Problems with IOL Haptic 16
- Coloboma 17
- Posterior Polar Cataract 17
- Posterior Capsule Rupture 19
- Conclusion 20

(* means approximately)

VIDEO 1
Introduction

Video 1 gives general explanations on phaco surgery. It demonstrates and explains that besides expensive foldable IOLs, smaller rigid PMMA IOLs can also be used. It also highlights which are the necessary preparations ophthalmologists should do before starting with phaco surgery, the most commonly used phaco techniques, which cataract patients are suitable to start with and how a phaco training should be conducted, including outcome monitoring.

This Phaco Instruction Course is based on the experience on thousands of phaco surgeries performed in our eye hospitals in Lahan and Biratnagar, Nepal, and the experience of teaching phaco to many ophthalmologists. This course is specially prepared for ophthalmologists, who are already experienced with SICS, are familiar with continuous curvilinear capsulorhexis (CCC) and eager to learn phaco surgery.

Phaco surgery was started in Lahan in 2001. At that time, most patients with cataract presented late with very hard nuclei, where SICS (Fish-hook Technique) was a much better option and more safe than phaco. Thus, SICS with Fish-hook Technique became our standard surgical technique. However, we strongly promote phaco on suitable patients, because the outcome evaluation on thousands of our phaco surgeries have shown excellent uncorrected visual acuity on the first postoperative day, even better than manual small incision cataract surgery (SICS). This does not mean that phaco should replace SICS, but due to the smaller incision, patients with not very hard nuclei will benefit more from phaco than from SICS.

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PMMA vs Foldable IOL

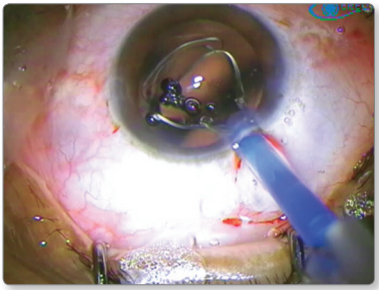

Figure 1 Injection of foldable IOL

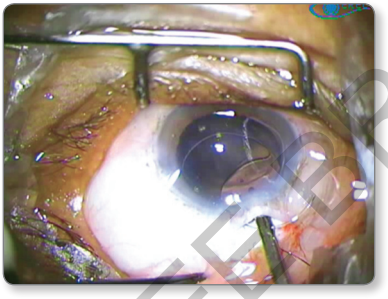

Figure 2 Insertion of PMMA IOL

Evaluating thousands of phaco surgeries we noticed that there is no outcome difference whether you insert a foldable IOL through a 2.5 mm clear corneal incision or a PMMA lens through a 5 mm sclerocorneal incision. First findings of a large randomized clinical trial, comparing the outcome of PMMA versus foldable IOL, support our earlier findings.

Hydrophilic acrylic foldable IOLs, produced in Nepal or India, are still about 10 times more expensive than PMMA IOLs, and a foreign hydrophobic acrylic foldable IOL is even 50 times more expensive than the PMMA IOL produced in Nepal or India. Phaco surgery should not be done only on rich patients, but also on poor patients who cannot afford a foldable IOL.

Except for the IOL, there are no other cost differences for consumables in phaco surgery.

Before starting phaco surgery, it is mandatory that the surgeon is familiar with the phaco machine he or she will be using, with its foot pedal, the relationship between flow rate, bottle height and vacuum, the various phaco power modulations, like continuous pulse and burst mode and in which situation they should be used best. Also, the difference between actual and effective phaco time should be known.

For phaco surgery, you need to use both your hands and feet. This will take a bit time to get used to.

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There is a variety of phaco surgical techniques with different names. This is mainly related to the removal of the nucleus. One of the first and well-known techniques is called 'divide and conquer', where the nucleus is divided into four quarters by trenching, and then each quarter is emulsified. This technique requires more ultrasound, resulting in longer phaco time.

Experienced phaco surgeons, also in Lahan and Biratnagar Eye Hospital, use the 'Phaco Chop' technique, which is more difficult, but requires minimum phaco time. For beginners, we normally teach the 'Stop and Chop' technique, in which the nucleus is divided in two parts by trenching. These two parts are then removed by phaco chop and emulsification.

Phaco machines from different companies work in slightly different ways. Therefore, a very careful approach is needed to avoid complications.

The phaco training should be done stepwise and under supervision of an experienced phaco surgeon. Start with lower phaco power, lower bottle height and lower vacuum.

In the beginning, only patients with cataract very suitable for phaco should be selected.

Magnification

We observed that in the beginning ophthalmologists like to choose a very high magnification because they think they see more and better. However, a very high magnification makes surgery very difficult. Therefore, we suggest to choose a magnification where you still have a good overview of the whole eye.

You may need a slightly higher magnification for the capsulorhexis.

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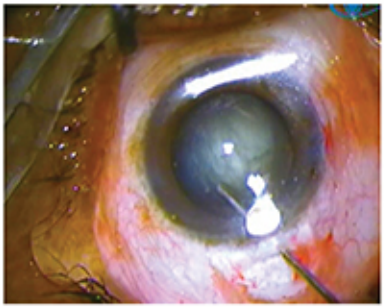

TWO INDISPENSABLE DVDs
STEP-BY-STEP INSTRUCTIONS FOR FOUR VIDEOS ON PHACO INSTRUCTION COURSE

Salient Features

- General explanations on phaco surgery
- Foldable IOLs vs rigid PMMA IOLs
- Commonly used phaco techniques
- Patient selection for phaco surgery
- Phaco Training, and Outcome Monitoring and Evaluation
- How to avoid mistakes
- Phaco on normal, soft and hard cataracts
- Challenging situations during phaco surgery

DVD CONTENTS

- Introduction
- 'Stop and Chop' Technique
- 'Chop' Technique
- Challenging Situations

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