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NUCLES DROP IN SMALL INCISION CATARACT SURGERY AND PHACOEMULSIFICATION A COMPARATIVE STUDY IN TERTIARY CARE CENTERS

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INTRODUCTION:
Nucleus drop is night mare for a ophthalmologist. and it is mental trauma and depressed for surgeon.and also for patient it leads to loss of vision severe morbidity.

It is every body responsibility to lessen the nucleus Drop cases...and Morbidity.. This Research work highlight the Impoartance of Method of surgery and preoperative Assesment of case.

AIM OF STUDY:
The aim of study is lessen the nucleus drop cases and improve the Surgeon efficiency to secure Slogan vision for all.

The surgical methods are different for every case ..mode of evaluation and intraoperative is varied and to decrease the incidence of Nucleus Drop cases

OBJECTIVE OF STUDY:
To lessen the incidence of Nudeus Drop Cases by taking Intraoperate Modes of Surgery,

MATERIALS AND METHODS OF STUDY...
we are taken total of 22 cases in various tertiary Eye Care Centres. Total of 5 Centers are taken into consideration

- GGH Vijayawada
- GGH Tirupati
- GGH Rajamahendravaram
- GGH Kakinada

Comparative study and cross Sectional study was implicated. All cases are above 60 years 3 cases are 70 years 4 Cases are 80years one case is 61 year

The Study Duration is 10 years 10 cases from GGH Vijayawade
3 cases Tirupati
2 cass from Rajahmahendravaram
5 cases from Kakinada
5 Cases are phacoemulsification
17 cases are sics cases

Classification of cases
GRADE 1 Nucleus-8
Grade II Nucleus 7 cases
Grade 111 cases 4 cases
Grade 4 Cases 3 Cases

Pre evaluation of cases
K, Reading-42 diopters
K2 Readin g-41 diopters
A scan 25mm in 8 cases
AS can24mmi 4 cases
Ascan23.5mm in 10 cases

Analytical Study also conducted.

P value is less than 0.01 case Control Study also observed.

Background of Nucleus Drop is very difficult to establish the Casuative factors of Drop.

PROCEDURE
there are total 22 cases of nucleus drop cases are observed.
Small incision cases are. 8 cases

PHACOEMULSIFICATION cases are 14 in number
History of cases of nucleus drop in sics cataract surgery are Total 8 cases

2 cases are zonular weakness

2 cases are traumatic cataract

All 6 cases are grade 4 cataract

4 cases are immature senile CATARACT

Remaining cases are normal

This thesis is mainly focuses on when and why drop occurs in all cases.

Pre-op evaluation is done inall cases are normal.all surgical steps are normal. Scleral incision is normal in all cases.

Problem lies in capsulorrhexis.. we didn't attempt capsulotomy.. in 50 percent of cases hydro dissection done in all 8 cases.

Posterior capsule ruptures in hydro dissection..no pc rupture in hydrodelination

Forcebul hydro dissection causes nucleus drop

Small capsulorrhexis causes nucleus drop.some what capsulotomy prevent nucleus drop.

Repeated hydrodissection causes nucleus drop

Small pupil not a cause of nucleus drop we can manage it successfully

But small pupil. forceful hydrodissection. unplanned nucleus rotation all factors may cause drop.

Sudden release feeling occurs.

PHACOEMULSIFICATION causes of nucleus drop. this is the method of surgery where ultrasound energy disintegration of nucleus production of lot of heat and endothelial loss to and fro movement of probe causes causes nucleus drop

Total 14 cases taken into consideration

8 cases are grade 4 nucleus 6 cases are immature senile cataract

There are no zonular weakness in this cases..4 cases are done with trench method ..4 cases are 4quadrants method .4cases are done with sub marine chop method.

K1k2readings are with normal limits a scan show s average 23.5 mm Nucleus drop during trenching..some cases are with small rrhexis Cause of nucleus drop in this cases are small rrhexisand improper hydrodissection.

So the causes of nucleus drop is improper hydrodissection and small capsulorrhexis

Phaco parameters are phaco energy 80 percent vaccum 120

Preoperatively patients on tab diamox to reduce IOP.

Other factors are like diabetes hypertension are may infithe dropDrugs usage also affect the nucleus drop..ANTI DIABETIC DRUGS. ANTI ARTHRITIS DRUGS may weaken the posterior capsule causing rupture of and nucleus drop.

DISCUSSION.

nucleus drop is devasting complication for a ophthalmologist it is night mare.. patient lost vision completely..going for pthisis bulbi..it must prevent at any cost from selection of patient tosurgical technique..and anaesthesia technique.

In this thesis we are more favourable for SICS (small incision cataract surgery)than PHACOEMULSIFICATION if any suspicious about outcome go for sics .. before that clearly accurate ly asseses the patient exclude small pupil

Zonular dialysis .. always do quite bigger rhexis not forcebul hydrodissection..rotate the nucleus after free movable never attempt after pupillary snap sign.

Grade 4 nucleus are always dangerous because of thin capsule…

CONCLUSION.

always anticipate the post capsule dehiscence.

It is better to do small incision cataract surgery..in dilema situations PHACOEMULSIFICATION has more incidence of nucleus drop.

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