Hydrodissection in manual SICS very important step in prolapsing nucleus out of the capsular bag. Fine's hydrodissection is defined as separation of cortex from adjacent capsule. It ensures nuclear rotation, loosens and facilitates removal of epinuclear shell and shears the cortico-capsular attachment making cortical aspiration safer and faster [1]. Hence complications related to prolapsing of the nucleus and cortical clean-up are effectively avoided.

Wrongly done hydrodissection may lead to various intra-operative complications. Such as difficult removal of remaining cortex, which can lead to zonular dehiscence and may lead to posterior capsule rent[2].

CHANGS HYDRODISSECTION CANNULA ensures very effective prolapse of one pole of the nucleus out of the capsular bag. Hence reduces surgical time and aids in better surgical outcome[3].

Our study will explore the efficacy of CHANGS HYDRODISSECTION cannula during hydrodissection in Manual SICS.

**Purpose-** To study efficacy and safety of CHANGS HYDRODISSECTION CANNULA for doing hydrodissection in Manual small incision cataract surgery (SICS) in all types of cataract.

**Design-** Prospective, Interventional, Institutional based, Observational study.

**Patient and method-** Patients were selected randomly irrespective of age and sex. Thorough pre-op investigations were done to diagnose the type of cataract. Intra-operative CHANGS HYDRODISSECTION cannula was used during hydrodissection to see the prolapse of the nucleus.

**Result-** Hydrodissection by Changs cannula is safe in Manual SICS. We found that in 95.4 % patient, equator of nucleus prolapsed in first attempt.

**Conclusion-** Hydrodissection by Changs cannula in Manual Small incision cataract surgery(SICS)is proved to be safe, extremely effective.
cortical clean up, rigid PMMA Posterior Chamber intra ocular lens
(PCIOL) is placed in capsular bag.

Result-
We included 2996 eyes in our study. Of which, Males were -
1631(54.4%) and Females were-1365(45.6%).

We noticed uneventful hydrodissection in all eyes. In 95.4% of patient
i.e. in 2858 eyes, equator of the nucleus prolapsed in first attempt.

Only in two cases we encountered a small radial tear at anterior
capsule at 1- 2 O’Clock position which were converted to can opener
capsulorhexis and rest surgery procedure was uneventful.

Discussion-
Changs cannula is 27 gauge metallic cannula bent at 90 degree
creating fan shaped fluid jet. It fits snugly between anterior capsule
rim and underlying cortex[3].

This ergonomically designed canulla used in this study greatly
facilitated hydro prolapse of the one pole of nucleus from the
capsulorhexis edge, reducing one more challenging step of nuclear
subluxation out of the capsular bag into anterior chamber. One more
advantage is that it also loosens the sub-incisional cortex[3].

In our study, Hydrodissection by Changs cannula was found to be safe
in manual SICS.

We found efficient prolapse of nucleus pole in AC in first
attempt(95%). In most of the cases no need arise for repeat hydrodis-
section. So it saves a lot of time and intra operative manoeuvres.

Conclusion-
Hydrodissection by Changs cannula in Mual Small incision cataract
surgery(SICS)is proved to be safe, extremely effective.

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Reference-
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