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Original Article

The Effect of Sajdah (Downward bend) after Phacoemulsification Surgery - A Comparative Study

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Abstract:

Phacoemulsification with PCIOL implantation is the method of choice for the removal of a cataractous lens. After the surgery, patients are advised to perform salat without sajdah. In this study, we aimed to evaluate the influence of sajdah in praying salat. One hundred patients who performed salat with sajdah from the day of phacoemulsification cataract surgery were randomly selected for group A, and 100 patients who performed salat without sajdah were selected for group B. Visual acuity, IOP, and central corneal thickness were measured, and iris prolapse, subconjunctival hemorrhage, and patient compliance were compared on the 1st POD, after 1 week, and after 1 month. There was no significant difference in visual acuity, IOP changes, central corneal thickness, subconjunctival hemorrhage, or iris prolapse between group A and group B. However, patient satisfaction was significantly higher in group A when praying salat with sajdah. This study suggested that there was no hazard associated with sajdah or downward bending after phacoemulsification surgery and that there might be no restriction on forward bending, downward bending, or sajdah from the day of phacoemulsification cataract surgery.

Keywords: Phacoemulsification, Cataract, Sajdah.

Introduction:

Cataract surgery is the most commonly performed surgery in ophthalmic practice. There are different types of cataract surgery, among which SICS and phacoemulsification are commonly used. Phacoemulsification cataract surgery with PCIOL is the most popular surgical method worldwide due to fewer side effects and early postoperative recovery[1]. Since Kelman introduced phacoemulsification in 1967, the techniques and instruments have gone through continuous improvement and refinement[2]. With the refinement of the phacoemulsification technique, cataract surgery has undergone remarkable development[3]. Phacoemulsification offers faster visual rehabilitation, less astigmatism, and more predictable postoperative refraction than traditional extracapsular

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cataract extraction[4]. In phacoemulsification surgery, all procedures are done through a very small incision of 2.2 mm to 2.8 mm, which is perfectly sealed after the formation of the anterior chamber with BSS or by stromal hydration[5]. Therefore, a mild increase in IOP from bending downward will not be sufficient for wound dehiscence. However, surgeons still advise patients not to bend forward after the surgery without knowing of any confirmed hazard.

To address this knowledge gap, a prospective study was conducted at Hikmah Eye Hospital, Dhaka. Visual acuity, IOP, iris prolapse, wound dehiscence, subconjunctival hemorrhage, and patient satisfaction were observed among two groups of people performing salat with sajdah and without sajdah.

There is no complete study about the effect of bending forward, downward, prostration, or sajdah in praying salat after phacoemulsification surgery. In a study at Sussex Eye Hospital, Brighton, East Sussex, UK, M. M. Quraishy reviewed the records of 21 patients with post-traumatic wound dehiscence following cataract surgery to establish the cause of injury and found that wound dehiscence most commonly resulted from patients accidentally knocking their eye with their hand, with falls being the second most frequent cause. No patient had suffered any problem as a result of bending down[6].

This study was carried out to assess the influence of forward bend, downward bend, or Sajdah after Phacoemulsification cataract surgery on visual acuity, IOP, any iris prolapse, wound dehiscence, subconjunctival hemorrhage, and patient satisfaction. This study will be helpful for patients who wish to pray with sajdah or bend forward or downward after phacoemulsification surgery. Postoperative advice can be given accordingly.

Materials and Methods:

This was a prospective observational study carried out at Hikmah Eye Hospital, Dhaka, Bangladesh, from July 2021 to June 2023. All surgeries were performed using the same method: topical anesthesia and a 2.2 mm to 2.8 mm incision with soft foldable IOL (Intraocular Lens) implantation. Cataract patients who performed salat with sajdah (prostration) from the day of phacoemulsification cataract surgery were included in Group A, and patients who performed salat without sajdah were included in Group B. A total of 200 patients (100 patients in Group A and 100 patients in Group B) were selected using a simple lottery method. Only Muslim age-related cataract patients aged 50 to 70 years, without any complications, normal fundus, and normal intraocular pressure (IOP) with uneventful surgery, and who were accustomed to pray salat with sajdah were included in the study. Exclusion criteria included complicated cataracts, glaucoma, any corneal disease, any type of retinopathy, any premature entry of the tunnel, any posterior capsular tear during operation, extreme age preventing adherence to instructions, individuals not accustomed to pray salat with sajdah, and those not interested in the study. Informed written consent was obtained from the patients after fully explaining the study. Pre-operative examination and post-operative follow-up were conducted on the 1st post-operative day (POD), after 1 week, and after 1 month. Visual acuity was measured by the log MAR visual acuity chart. IOP was measured by air puff non-contact tonometry (NCT), and central corneal thickness (CCT) was measured by ultrasound pachymetry. Subconjunctival hemorrhage and iris prolapse were assessed using a slit lamp biomicroscope examination of the eyes. Statistical analysis was done using the SPSS software program. The status of visual acuity, central corneal thickness, subconjunctival hemorrhage, any iris prolapse, and IOP were measured and compared between the two groups using an unpaired 't' test. A probability value (p) less than 0.05 was considered significant.

Results:

Results have been shown in tabulated form bellow:

Table I shows, In Group A Visual acuity (log MAR) in the baseline period, on 1st POD, on 1st week & after 1 month were 1.15, 0.60, 0.10 & 0.06 respectively. In Group B they were 1.16, 0.60, 0.10 & 0.07 respectively. Differences in both Groups were not significant.

Table-I: Distribution of patients according to visual acuity

	Group A	Group B	P value
V/A in Log MAR	Mean value	Mean value	
Baseline	1.15	1.16	>0.05 (ns)
1st POD	0.60	0.60	>0.05 (ns)
1st week	0.10	0.10	>0.05 (ns)
After 1 month	0.06	0.07	>0.05 (ns)

Table II shows, IOP in Group A were 15.48, 17.34, 15.28 &14.38 on the baseline,1st POD on 1st week, and after 1 month respectively compared to Group B 15.60, 17.42, 15.34, and 14.42 respectively. IOP changes in both groups were not significant.

Table-II: Distribution of patients accordingto IOP

	Group A	Group B	P value
IOP mm Hg	Mean value	Mean value	
Baseline	15.48	15.60	>0.05 (ns)
1st POD	17.34	17.42	>0.05 (ns)
1st week	15.28	15.34	>0.05 (ns)
After 1 month	14.38	14.42	>0.05 (ns)

Table III shows Central Corneal thickness in Group A on the baseline, 1st POD, on 1st week & 1st month were 512.44, 530.24, 518.24 &514.62 microns respectively. In Group B the values were 511.22, 531.35, 518.84 & 514.24 microns respectively (Table III). The differences were also not significant.

Table-III: Distribution of patients according to Central Corneal Thickness

	Group A	Group B	P value
Corneal thickness	Mean value	Mean value	
Baseline	512.44	511.22	>0.05 (ns)
1st POD	530.24	531.35	>0.05 (ns)
1st week	518.24	518.84	>0.05 (ns)
After 1 month	514.62	514.24	>0.05 (ns)

Table IV shows out of 100 patients in Group A subconjunctival hemorrhage was found nil in Baseline & 3 patients in 1st POD, 2 patients in 1st week and nil after 1 month. The numbers were the same respectively in Group B.

Table-IV: Distribution of patients according to Subconjunctival Hemorrhage.

	Group A	Group B	P value
Subconjunctival Hemorrhage	No. of pt.	No. of pt.	
Baseline	0	0	>0.05 (ns)
1st POD	3	3	>0.05 (ns)
1st week	2	2	>0.05 (ns)
After 1 month	0	0	>0.05 (ns)

Table V shows Iris Prolapse was nil in both groups after surgery.

Table-V: Distribution of patients according to Post-operative Iris prolapse

	Group A	Group B	P value
Iris prolapse	No. of pt.	No. of pt.	
1st POD, 1st Week & After 1 Month	0	0	>0.05 (ns)

Table VI shows Patient's Satisfaction in praying Salat: In Group A in 1st POD & 1st week 95 patients said that they were very much satisfied by praying Salat with Sajdah after Phacoemulsification surgery. In Group B on 1st POD & 1st week, only 14 patients said that they were satisfied and others said that they were not satisfied by praying Salat without Sajdah after Phacoemulsification surgery (Table VI). These differences are statistically significant between Group A and Group B.

Table-VI: Distribution of patients according to their Satisfaction in Praying Salat

	Group A	Group B	P value
1st POD	95	14	<0.05* (significant)
1st week	95	14	<0.05* (significant)
After 1 month	96	97	>0.05 (ns)

Discussion

This prospective observational and comparative study aimed to evaluate the influence of forward bending, downward bending, or sajdah after phacoemulsification cataract surgery on visual acuity, IOP, any iris prolapse, wound dehiscence, subconjunctival hemorrhage, and patient satisfaction. The results of the study showed that differences of values of visual acuity, IOP, Central Corneal thickness between Group A and Group B were not significant. The overall incidence of iris prolapse and subconjunctival hemorrhage were almost same in both groups. Patient who performed Salat with Sajdah were satisfied.

Limitation of the study is that sample size was relatively small. Further research is needed to assess the influence of bend forward, downward, prostration or Sajdah in praying in other populations and settings.

Conclusion:

This study concludes that there is no hazard in downward bending or sajdah from the day of

Phacoemulsification cataract surgery and there might be no restriction in bending forward, downward, prostration or sajdah in praying after an uneventful Phacoemulsification cataract surgery.

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