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Early detection and descemetopexy boon for visual outcome in Descemet's membrane detachment following cataract surgery

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ABSTRACT

Aim: To compare results of early intra-operative versus post-operative Descemet's membrane detachment (DMD) detection and descemetopexy.
Materials and Methods: Data was collected retrospectively for patients who developed DMD from December 2018 to March 2020 and underwent air descemetopexy.
Results: The study comprised of 85 eyes of 85 patients. (which 4 were excluded.) There were 41 males and 39 females. Mean age was 66.93 years (SD ± 12.21). 4 eyes had mild DMD which were excluded from final analysis. 55 eyes had moderate & 26 had severe DMD. 68 eyes had intraoperative descemetopexy (Group 1) and 13 had late detection of DMD with late post-operative descemetopexy (Group 2). Median final BCVA in group 1 was 0.17 logMAR(IQR 0.13) & in group 2 was 0.60 logMAR(IQR 0.22).
Conclusion: Air descemetopexy gives acceptable results in cases of DMD. However early detection of DM detachment during primary surgery with early descemetopexy yields better results in visual outcome of patients. Hence, carefulness in detection of intra-operative complications should be kept and early descemetopexy should be considered to prevent severe visual loss due to DMD.

1. Introduction

Descemet's membrane detachment (DMD) is an unusual but sight threatening condition with a wide range of possible precipitating factors. The commonest cause being a localized detachment occurring after cataract extraction surgery.[1] Diagnosis is made intraoperatively in 50% of the cases.[2] Occasionally, it can develop late in the post-operative period varying from weeks to months.[3–6] Many small, subclinical detachments may undergo spontaneous resolution within days following surgery and hence may remain undetected and pass unreported. However, larger detachment of Descemet's membrane manifests as persistent corneal edema following surgery, which can lead to corneal endothelial decompensation in severe cases and affect the visual prognosis in these patients. Hence their identification and management is an important part of the intra-operative and post-operative evaluation. However, reports of spontaneous reattachment of large DMD are scattered throughout the literature,[7–9] but in today's world of refractive surgeries with high expectation good visual outcome waiting for spontaneous reattachment of the detached DM for an unspecified period seems questionable, recent reports have favoured early surgical intervention to reattach a DMD.[10,11]

Shallow chambers, complicated or repeated operations, inadvertent insertion of instruments between the corneal

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stroma and Descemet's membrane, anterior and shelved incisions, and the use of dull blades have been mentioned as various causes of DMD.[2] Descemet's membrane entrapment while intraocular lens implantation or during irrigation & aspiration devices can also lead to DMD. Inadvertent injection of viscoelastic material by inserting the cannula between Descemet's membrane and the corneal stroma may be the most common cause of DMD with the current surgical techniques.[12] Successful reattachment of Descemet's membrane has been observed with the intracameral use of air, sulphur hexafluoride (SF6), and perfluoropropane (C3F8).[13] In this study we would like to share our experience of descemetopexy with use of air, its efficacy, visual outcome with early intra-operative detection of DMD and descemetopexy verses post-operative detection of DMD followed by descemetopexy. To the best of our knowledge it is the first largest study to compare results of early intra-operative and post-operative descemetopexy.

2. Materials and Methods

2.1. Study site & period

As per the declaration of Helsinki, data was collected retrospectively for patients who developed DMD from December 2018 to March 2020.

2.2. Inclusions & exclusions

Of approximately 32657 patients who underwent elective manual small incision cataract surgery in a period of 15 months, 85 eyes of 85 patients were detected with DMD either intra-operativelyor post-operatively and underwent air descemetopexy. Of these 85 patients 4 patients who had mild DMD and were treated conservatively were excluded from the study. Hence, a total of 81 eyes of 81 patients were included in the study.

2.3. Data collection

The data recorded included demographic data, medical and personal history, pre and post-operative BCVA recorded in logarithm of the minimum angle of resolution (logMAR), anterior segment pathology, cataract score, posterior segment pathology if any, eye operated, corneoscleral tunnel site (superior or temporal), any surgical complication including DMD, step of occurrence of DMD, grade of DMD, descemetopexy performed intra-operatively or post-operatively, time between identification of DMD and descemetopexy, post descemetopexy DM status and resurgery if needed.

2.4. Pre-operative evaluation

Anterior segment pathology was noted from detailed slit lamp evaluation performed pre-operatively. A cataract scoring was developed in which nuclear grading was done in accordance to LOCS III grading system, score ranging from 1-6, additional score of 1 each was give if any cortical or posterior subcapsular component was present, mature cataract was given a score of 9 and hypermature cataract was given a score of 10.

2.5. Grading

DMD grading was done as suggested by Jain et al.[14] who categorized DMDs into three groups according to the extension of DM detachment described as follows: mild if it involved less than 25% of the cornea and was peripheral, moderate if it involved 25–50% cornea and was peripheral, and severe if it involved more than 50% of the cornea or involved the central cornea. DMD was also classified into planar and non planar separations. The former are those where there is 1mm or less separation of the membrane from its overlying stroma in all areas of detachment. These can be further subdivided into peripheral detachment (of the peripheral 3 mm) and peripheral and central detachment. Non planar detachments are those in which there is more than 1 mm separation of the DM from its corresponding stroma in any area. These can also be further subdivided into the same two categories as the planar detachments.

2.6. Surgical techniques

All the surgeries were performed by experienced surgeons as manual small incision cataract surgery with either a superior or temporal corneo-scleral tunnel incision. Descemetopexy was performed with a 26G cannula mounted on a 2 ml syringe, air was aspirated into the syringe, and was injected through a paracentesis incision opposite to the area of detachment. A continuous, single bubble of the gas was aimed into the anterior chamber. Once a complete gas-filled chamber was maintained, the side-port entry was hydrated or sutured with a 10-0 monofilament nylon suture. The eye was patched in all cases.

2.7. Outcome assessment

Post-operative assessment included BCVA recorded in logMAR, anatomical DM attachment assessment was given special attention and IOP recording was done using non contact tonometer. Standard post-operative treatment of combination of topical antibiotic and steroid (moxifloxacin0.5% & prednisolone acetate 1%) was given to all the patients in a tapering dose over a period of 6 weeks, increased IOP was treated with oral and topical anti-glaucoma medications. Outcome measure were recorded on 1^{st} post-operative day, 1^{st} post-descemetopexy day, 7^{th} post-descemetopexy day and at 30^{th} post-descemetopexy day.

2.8. Statistical analysis

Data was entered into Microsoft Excel Sheet (Version 6.0, Microsoft USA) and data was analyzed using SPSS software version 11.5 (Statistical Package for Social Sciences). Parametric Descriptive data was recorded in the form of mean and standard deviation and Non Parametric Descriptive data was recorded as median and inter-quarantile range (IQR). Multiple logistic linear regression analysis and chi-square test were applied to quantify the pre-operative associations of DMD and final visual outcome wherever needed.

3. Results

The study comprised of 85 eyes of 85 patients detected with Descemet's Membrane Detachment (DMD) following or during Manual Small Incision cataract surgery from December 2018 to March 2020. Of these 85 patients 4 had mild DMD detected post-operatively for which conservative treatment was given and were excluded from the study. Of the remaining 81 cases 57 cases were done with superior corneo-scleral incision and 24 with temporal corneo-scleral incision.

Mean age of 81 patients at the time of surgery was 66.98 years (SD 12.21 years, p=0.6582, multiple linear regression analysis), no significant correlation of DMD with age could be made out. Gender and operation site ratio were, Male: Female ratio of 41:39 and ratio of right to left eye 38: 43.

In 68 patients where intra-operative detection of DMD was done and early air descemetopexy was done in the same sitting were defined as group 1 and in 13 patients where DMD was diagnosed and treated post-operatively during follow ups as group 2.

Cataract grading was done according to a specialised scoring system described above, median cataract grade range in which DMD occurred was 8 (IQR 5). (Table 1)

In group 1, 8 (9.8%) patients had pre-existing corneal opacities and 1(1.2%) in group 2, 8 (9.8%) patients had dense arcus in group 1 and 3 (3.7%) in group 2, 5 patients had nasal pterygium grade 2 or more and 1 had double pterygium in group 1(7.4%) and 1 patient in group 1 (1.2%) had nasal pterygium grade 2 and 49(58.3%) had clear cornea in group 1 and 8 (9.8%) in group 2. No association could be established between pre existing corneal pathology and occurrence of DMD (p=0.70, Chi-square test). Four(4.9%) out of 81 patients had shallow anterior chamber less than Von Herrick's Grade 2, 2 patients in each group. Only 2 (2.4%) patients had pre-operatively high intra ocular pressure(p=0.31, multiple regression analysis) and belonged to group 1 as described in (Table 1).

In group 1, 15 had severe DMD while 53 had moderate DMD while in group 2, 11 had severe DMD and 2 had moderate DMD (Table 2). Two cases had zonular dialysis intra-operatively in group 1 and one had posterior capsular rent along with vitreous loss followed by an anterior vitrectomy and iris claw lens placement in group 2.

Mean time for detection of DMD in these cases was 11.28 days (SD 9.74 days) (Range 1-39 days) and descemetopexy was performed at mean of 12.46 days (SD 9.87 days). In group 1, 34 had DMD during anterior chamber entry by keratome 3.5 mm, 22 had during nucleus delivery in median cataract score of 5 (IQR 6), 4 during side port entry, 4 had during side port maneuvers and 4 during A/C reformation (Table 3).

In group 1 patients median post-operative day 1 visual acuity was 0.60 logMAR (IQR 0.30) and in reaming group 2 it was 1.47 logMAR (IQR 0.77). Post descemetopexy day 1 visual acuity was same in group 1 patients as their post-operative day 1 visual acuity, in group 2 median visual acuity was improved to 1.0 logMAR (IQR 1.20) (Table 4). Median final visual outcome in group 1 patients was 0.17 logMAR (IQR 0.13), and in group 2 was 0.60 logMAR (IQR 0.22). In group 1 there was significant increase in visual acuity post descemetopexy (p=0.00, by multiple regression analysis) but not in group 2 (p=0.08, by multiple regression analysis).

In group 1, 34 patients had clear cornea next post-operative day, 33 had mild corneal edema and one had epithelial bullous keratopathy. In group 2 none had a clear cornea first post-operative day, 10 had severe stromal edema and 2 had epithelial bullous keratopathy and one patient had flat anterior chamber, appositional angle closure with severe stromal edema (Table 5). Stromal and epithelial edema resolved in all the cases except for two cases in which edema persisted along with DMD and eventually lead to corneal decompensation, for which keratoplasty was done to regain the visual loss. In group 1 one patient needed re-descemetopexy, time interval between primary descemetopexy and re-descemetopexy was 1 day, while in group 2, 2 patients needed resurgery, time interval between primary descemetopexy and re-descemetopexy was 20 days in 1 patient and 3 days in other.

Table 4 showing median visual acuity on post-operative day 1 (POD1), post-descemetopexy day 1 (PODescx1) and post-descemetopexy day 30 (PODescx30).

4. Discussion

DMD is an usual potentially sight threatening complication following cataract surgery.[2,15,16] Post MSICS the incidence of vision threatening DMD was 0.11%,[15] incidence in our institute was 0.30% which is pretty high as expected which is due to the fact that intra-operative descemetopexy was included in our study. Due to lack of literature proper guidelines regarding management of DMD is not available. Question which mainly arises is the need of intervention and timing of intervention.

However, reports of spontaneous reattachment of DMD exists,[8,9] but it may take months to resolve and may

Table 1: Showing percentage distribution of possible pre-operative associations of DMD

Variables	Group 1(n=68)	Group 2(n=13)	Total (%)
Medical history	4	3	8.6%
Corneal opacity	8	1	10.7%
Corneal degeneration	8	3	13.1%
Pterygium	6	1	8.3%
Shallow A/C	2	0	2.4%

Table 2: Showing percentage distribution of possible pre-operative associations of DMD

DMD Grade	Group 1(n=68)	Group 2(n=13)	Total (%)
Moderate	53	2	67.90%
Severe	15	11	32.09%

Table 3: Percentage distribution of Grades of DMD

Step of DMD Occurrence	Group 1(n=68)	Total (%)
A/C entry keratome	34	50%
Nucleus delivery	22	32%
Side port entry	4	6%
Side port maneuvers (I/A, viscoinjection etc)	4	6%
A/C Reformation	4	6%

Table 4: Showing percentage distribution of step of occurrence of DMD in Group 1

Post operative Period	Group 1(MEdian {IQR}) logMAR	Group 2(Median {IQR}) logMAR
POD1	0.60 {0.30}	1.47 {0.77}
PODescx1	0.60 {0.30}	1.00{1.20}
PODescx30	0.17 {0.13}	0.60 {0.22}

Table 5: Showing percentage distribution of post-operative day 1 complications

Post-operative complications	Group 1(n=68)	Group 2(n=13)
Clear cornea	34 (50%)	0 (0%)
Mild corneal edema	33 (48.5%)	0 (0%)
Epithelial bullous keratopathy	1 (1.5%)	2 (16%)
Severe corneal edema	0 (0%)	10 (77%)
Appositional angle closure	0 (0%)	1 (7%)

even lead to fibrosis, shrinkage, and wrinkling of DM, which may subsequently prevent reattachment.[2] But in today's refractive world early post operative visual rehabilitation is expected by patients. Similar to our findings, the existing literature states that there is a significant increase in visual acuity after descemetopexy than if treated conservatively[16,17] hence early treatment should be advocated even in cases of small non scrolled DMD.

Jain et al.[14] found that air was better than C3F8 with reduced incidence of pupillary block for descemetopexy. They reported successful reattachment in 57 out of the 60 patients with use of either air or C3F8, Chaurasia et al.[16] reported successful reattachment of DM with air in 13 out of 14 patients in their series Garg et al.[18] showed that anatomical reattachment of DM was seen in 71.64%, Odayappan A et al.[15] reported successful reattachment in 80% of their cases. In our study including both the groups only 2 (2.4%) patients had failure in reattachment rate, rest (97.5%) all has successful reattachment of DM post descemetopexy which his high as compared to others as most of the cases were diagnosed and treated early. This shows the importance of carefulness during the surgery and management of complications as soon as it is detected.

Jain et al.[14] stated that the final visual acuity in there series was adversely affected when DMD occurred in patients who had a more advanced cataract, grade 3-4 nuclear sclerosis and endothelial diseases by Sashidharan et al.,[19] however in our study cataract score didn't affect the final visual acuity (p=0.64, multiple linear regression analysis).

Factors leading to DMD include accidental insertion of the instruments between stroma and DM, shallow AC, inadvertent injection of saline or OVD between the deep stroma and DM, blunt keratome, or weak adhesions between them.[20–22] Engaging Descemet's

membrane during intraocular lens implantation or with the irrigation/aspiration device (when mistaken as an anterior capsular remnant) can also lead to extensive DMD.[23] Few associations of DMD like corneal pathology obscuring the vision (32.1%) (Corneal opacities, degenerations, scars, pterygium) during surgery, shallow anterior chamber (2.5%) lead to DMD but it cannot be significantly associated with occurrence of DMD (p=0.70, chi-square test). Sasidharan A et al.[19] found 8.5% of DMD occurred in patients with a shallow anterior chamber.

We found that in group 1 (n=68) where exact step and site of occurrence of DMD could be identified, A/C entry by keratome was cause of DMD in 34 patients (50%), by 15° side port entry blade during side port entry in 4 patients (5%), by irrigating wire vectis or sandwich technique during nucleus delivery in 22 patients (32%), and during side port manuvers like irrigation and aspiration, viscoinjection etc caused DMD in 4 patients (6%) and in 4 patients during A/C reformation(6%). Patients in which DMD occurred during nucleus delivery, maximum patients had cataract score 5. Significant association can be made out between occurrence of harder cataract and DMD(p=0.0, chi-square test). Therefore, especial attention should be given during these steps to avoid DMD and use of dull blades, nucleus delivery should be done extra cautiously under surplus viscoelastic coating in patients with hard nucleus with an adequate size sclera-corneal tunnel and side port manuvering should be done carefully especial attention to be given while insertion of instruments. Inadvertent insertion of BSS or air between Descemet's membrane and corneal stroma during A/C reformation can lead to extension of a small DMD to a large one.

Odayappan A et al.[15] and Kim et al.[24] noted that the timing of intervention did not influence the reattachment rate. We also had the similar inference with respect to reattachment rate but timing of intervention did influence the final visual outcome. As per Sasidharan A et al.[19] and Nouri et al.[25] early diagnosis of DMD is crucial. Early attachment leads to better visual rehability because prolonged Descemet's membrane detachment can result in corneal opacification, fibrosis, and wrinkling of Descemet's membrane, thereby affecting visual recovery.[2] Kumar D et al.[26] found that early intervention in DMD involving central cornea reduces the scarring induced visual loss. Final visual outcome in our study was significantly better in group 1 as compared to group 2 (p=0.0, multiple linear regression analysis), this supports the fact that early diagnosis of DMD during primary surgery and early intervention by descemetopexy can lead to better visual rehabilitation. Supportive findings to above fact is that in group 1 where early descemetopexy was done 34 patients had clear cornea 1^{st} post-operative day while none of the patients in group 2 had clear cornea, only mild edema was noted in group 1 while in group 2, 92% of patients had severe corneal edema and epithelial bullous keratopathy.

Repeat descemetopexy was required in three patients one patient from group 1 and 2 patients from group 2. Mahmood et al.,[2] Marcon et al.[17] and Jain et al.[14] also needed repeat injections in a few patients in their study because of failure in attachment of DM. In our study two patients after repeated injections, failure in attachment of DM continued which lead to corneal decompensation and eventually penetrating keratoplasty was done in those patients to gain visual rehabilitation.

5. Conclusion

DMD is a preventable cause for postoperative corneal oedema and low visual acuity. DMD mostly being a surgeon induced complication watchfulness during the surgery is highly demanded especially while handling blades for entry in eye, during instrument manuvering through and in the eye, while delivery of relatively hard nucleus and especially during A/C reformation at the end of surgery. Timing of descemetopexy has no effect on reattachment rate of DM but it surely affected the final visual outcome. Hence, keen observation during the surgery is required for early detection of DMD and attempt to reposition it by air descemetopexy should be tried during the same surgery. In cases of non resolving DMD before attempting corneal transplant multiple attempt of descemetopexy can be tried.

As records were reviewed retrospectively conduct of a proper comparative study was not possible, which lead to failure in determining associations of DMD. Lack of control group also affected the study which could have been the patients given conservative treatment. Another setback in our study was that all the surgeries were camp based due to which long term follow up and good patient compliance was not achievable.

6. Abbreviations

DM- Descemet's membrane; DMD- Descemet's membrane detachment; MSICS- Manual small incision cataract surgery; C_3F_8- Perfluoropropane; SF_6- Sulphur hexafluoride.

7. Source of Funding

Nil.

8. Conflicts of Interests

None.

References

1. Anderson CJ. Gonioscopy in no-stitch cataract incisions. *J Cataract Refract Surg*. 1993;19(5):620–1.
2. Mahmood MA, Teichmann KD, Tomey KF, Al-Rashed D. Detachment of Descemet's membrane. *J Cataract Refractive Surg*. 1998;24(6):827–33.

3. Gatzioufas Z, Schirra F, Löw U, Walter S, Lang M, Seitz B. Spontaneous bilateral late-onset Descemet membrane detachment after successful cataract surgery. *J Cataract Refract Surg*. 2009;35(4):778–81.
4. Couch SM, Baratz KH. Delayed, bilateral descemet's membrane detachments with spontaneous resolution: Implications for nonsurgical treatment. *Cornea*. 2009;28(10):1160–3.
5. Stewart CM, Li F, Mcalister JC. Late-onset persistent Descemet's membrane detachment following uncomplicated clear corneal incision cataract surgery. *Clin Exp Ophthalmol*. 2011;39(2):171–4.
6. Morkin MI, Hussain RM, Young RC, Ravin T, Dubovy SR, Alfonso EC. Unusually delayed presentation of persistent Descemets membrane tear and detachment after nbsp; cataract surgery. *Clin Ophthalmol*. 2014;8:1629–32.
7. Sugar H. Prognosis in Stripping of Descemet's Membrane. *Am J Ophthalmol*. 1967;63(1):140–3.
8. Minkovitz JB, Schrenk LC, Pepose JS. Spontaneous resolution of an extensive detachment of Descemet's membrane following phacoemulsification. *Arch Ophthalmol*. 1994;112(4):551–2.
9. Assia E, Levkovich-Verbin H, Blumenthal M. Management of Descemet's membrane detachment. *J Cataract Refractive Surg*. 1995;21(6):714–7.
10. Walland MJ, Stevens JD, Steele AD. Repair of Descemet's membrane detachment after intraocular surgery. *J Cataract Refract Surg*. 1995;21(3):250–3.
11. Gault JA, Raber IM. Repair of Descemet's membrane detachment with intracameral injection of 20% sulfur hexafluoride gas. *Cornea*. 1996;15(5):483–9.
12. Suh LH, Yoo SH, Deobhakta A, Donaldson KE, Alfonso EC, Culbertson WW, et al. Complications of Descemet's stripping with automated endothelial keratoplasty: survey of 118 eyes at One Institute. *Ophthalmology*. 2008;11(9):1517–24.
13. Al-Mezaine H. Descemet's membrane detachment after cataract extraction surgery. *Int Ophthalmol*. 2010;30(4):391–6.
14. Jain R, Murthy SI, Basu S, Ali M, Sangwan VS. Anatomic and visual outcomes of descemetopexy in post-cataract surgery descemet's membrane detachment. *Ophthalmology*. 2013;120(7):1366–72.
15. Odayappan A, Shivananda N, Ramakrishnan S, Krishnan T, Nachiappan S, Krishnamurthy S. A retrospective study on the incidence of post-cataract surgery Descemet's membrane detachment and outcome of air descemetopexy. *Br J Ophthalmol*. 2017;102(2):182–6.
16. Chaurasia S, Ramappa M, Garg P. Outcomes of air descemetopexy for Descemet membrane detachment after cataract surgery. *J Cataract Refractive Surg*. 2012;38(7):1134–9.
17. Marcon A, Rapuano C, Jones M, Laibson P, Cohen E. Descemet's membrane detachment after cataract surgery: management and outcome. *Ophthalmology*. 2002;109(12):2325–30.
18. Garg J, Mathur U, Acharya MC, Chauhan L. Outcomes of Descemetopexy with Isoexpansile Perfluoropropane after Cataract Surgery. *J Ophthalmic Vis Res*. 2016;11(2):168–73.
19. Sasidharan A, Kandasamy P. Risk Factors for Descemet's Membrane Detachment Following Small Incision Cataract Surgery. *J Clin Diagn Res*. 2018;12(7):1–3.
20. Chow V, Agarwal T, Vajpayee R, Jhanji V. Update on diagnosis and management of Descemet′s membrane detachment. *Curr Opin Ophthalmol*. 2013;24(4):356–61.
21. Samuels B. Detachment of Descemet's membrane. *Trans Am Ophthalmol Soc*. 1928;26:427–37.
22. Scheie H. Stripping of Descemet's Membrane in Cataract Extraction. *Arch Ophthalmol*. 1965;73(3):311–4.
23. Pieramici D, Green WR, Stark WJ. Stripping of Descemet's membrane: a clinicopathologic correlation. *Ophthalmic Surg*. 1994;25(4):226–31.
24. Kim IS, Shin JC, Im CY, Kim EK. Three Cases of Descemet's Membrane Detachment after Cataract Surgery. *Yonsei Med J*. 2005;46(5):719–23.
25. Nouri M, Pineda R, Azar D. Descemetmembrane tear after cataract surgery. *Semin Ophthalmol*. 2002;17(3-4):115–9.
26. Kumar D, Agarwal A, Sivanganam S, Chandrasekar R. Height-, extent-, length-, and pupil-based (HELP) algorithm to manage post-phacoemulsification Descemet membrane detachment. *J Cataract Refract Surg*. 2015;41(9):1945–53.

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