God made Capsulorrhexis

Maj A Sati*, Col N Bhargava⁺, Col R Maggon[#], Lt Col R Sinha^{**}, Maj B Raj⁺⁺

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Introduction

As early as 1764, Morgagni, the famous anatomist wrote in his book "The seats and causes of disease" about hypermature cataracts in the elderly [1]. This is a type of hypermature cataract which is still known by his name-the Morgagnian cataract. A morgagnian cataract is a hypermature cataract in which total liquefaction of the cortex allows nucleus to sink inferiorly [2]. Spontaneous anterior capsular opening in form of capsulorrhexis is an extremely rare presentation in morgagnian cataract and in it, pupillary block glaucoma usually occurs due to intumescence of lens [3]. We report an extremely rare case of spontaneous anterior capsular opening (God made capsulorrhexis) in morgagnian cataract resulting in expulsion of morgagnian nucleus which was caught and suspended at the pupil causing pupillary block glaucoma.

Case Report

This 66 years old mother of a serving soldier reported to us with complaints of excruciating pain, redness and diminution of vision in left eye (LE). She had painless progressive diminution of vision in the same eye for almost one year. Initial ocular examination revealed Snellen's visual acuity (VA) of 6/6 in right eye (RE) and perception of light with accurate projection of rays in LE. Extraocular movements were full. Slit lamp and fundus examination of RE were normal. Left eye examination revealed circumcorneal congestion (Fig. 1), relatively clear cornea, shallow anterior chamber with almost half anteriorly prolapsed nucleus through pupil occupying the entire pupillary area (Fig. 2). Other details were not visualized. Intraocular pressure as recorded by noncontact tonometer was 14 mm of Hg and 46 mm of Hg in right and left eyes respectively. Clinically, a diagnosis of pupillary block glaucoma by anteriorly luxated cataractous nucleus was made.

Pupillary block was then broken by immediate instillation of a few drops of 10% Phenylephrine and individual got respite from pain within ten minutes. Following pupillary dilation it

was noticed that nucleus was half prolapsed through a central anterior capsular opening with liquefied cortical matter between anterior and posterior capsule. A final diagnosis of pupillary block glaucoma caused by anteriorly luxated morgagnian nucleus through a spontaneous anterior capsular opening was made and the individual was taken up for cataract surgery.

Phacoemulsification was planned and the anterior chamber was entered with 3.2mm clear corneal superotemporal incision. As the anterior chamber was entered, there was a sudden complete prolapse of morgagnian nucleus into anterior chamber which was then phacoemulsified by horizontal phaco chop technique. Liquefied cortical matter was then removed by irrigation and aspiration probe. Finally, capsular bag was filled with 2% Hydroxypropyl methyl cellulose and a foldable hydrophobic lens (AMO Technis) was inserted in bag through naturally made anterior capsular opening (Fig. 3). Postoperative period was uneventful. Presently, her vision is 6/6 in left eye with clear cornea, normal depth anterior chamber, briskly reacting pupil, well placed posterior chamber intraocular lens (Fig. 4) and a normal fundus. Intraocular pressure is 14mm Hg in both eyes by noncontact tonometer.

Discussion

Hypermaturity of cataract is frequently seen due to neglect and sometimes the deliberate refusal by elderly patients to have an operation. It appears that morgagnian cataract is a special form of cortico-nuclear cataract. It is assumed that the process of fibre dissolution which is encountered in cortical cataract in general is speeded up and occurs en masse in morgagnian cataract. Enzymatic degradation of membrane and crystal in fibre components could then occur to produce liquefaction of the fibres and resorption of the cortical fluid [2].

Appearance of spontaneous round anterior capsular opening as encountered in our case could be attributed to dissolution of either circumscribed fibrosis of anterior capsule or anterior polar cataract or anterior subcapsular cataract. Detailed review of ophthalmic literature has

*Graded Specialist, *Senior Advisor, **Classified Specialist, ++Resident (Ophthalmology), Command Hospital (WC), Chandimandir, Haryana-134107. +Senior Advisor (Ophthalmology), Base Hospital, Delhi Cantt.

Fig. 1: Preoperative photograph showing half prolapsed morgagnian nucleus at pupillary area under low and high magnification.

Fig. 2: Schematic diagram showing half prolapsed morgagnian nucleus at pupillary area.

reported only a few cases of spontaneous rupture of anterior capsule [1, 4] in morgagnian cataract as compared to posterior capsule [5-7].

Anterior rupture of the capsule with expulsion of lens matter is a rare phenomenon. It may manifest as free floating crystals in aqueous humor producing a "Snowy Christmas Eve" appearance and occasionally as a pseudohypopyon presenting as a layer of "Snow drift deposits" [4]. However no such observation was made in our case.

Morgagnian cataract is implicated as a causative element in producing several forms of glaucoma. Etiologically they represent a diversity in the presentation of the glaucomatous process. These conditions include glaucoma related to lens dislocation (ectopia lentis), lens swelling (intumescent cataract), phacoanaphylaxis, lens particle, and phacolytic glaucoma [8]. In our case, papillary block glaucoma has occurred through an extremely rare mechanism in which the morgagnian nucleus has come out of capsular bag through a round anterior capsular opening and getting itself lodged at pupillary area.

This case report is of particular interest not only

Fig. 3: Spontaneous round anterior capsular opening (God made capsulorrhexis).

Fig. 4: Postoperative photograph and foldable lens (AMO Technis) in capsular bag.

because it is rare for morgagnian cataract to present with rupture of anterior capsule in form of capsulorrhexis resulting in expulsion of nucleus into pupillary area, but also because there is only one documented report in ophthalmic literature of an expelled nucleus being caught and suspended at the pupil [1].

Since hypermaturity of a cataract often causes serious complications, we stress the importance of prevention of hypermature cataracts by an early intervention and if hypermaturity without complications is presented, the lens should be removed as early as possible. Also we recommend the name of this form of capsulorrhexis as "Morgagniorrhexis".

Conflicts of Interest

None identified

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Journal Scan

Juliana de Melo Crosara, Everton Luis Santos da Rosa, Micena Roberta Miranda Alves e Silva. Comparison of cutaneous incisions to approach the infraorbital rim and orbital floor. *Braz J Oral Sci* 2009; 8: 88-91.

This article is about retrospective analysis and comparison of the aesthetic outcomes achieved after the use of 20 subciliary incisions, 22 subtarsal incisions and 16 infraorbital incisions to approach the infraorbital rim and orbital floor in orbital fractures. The sample consisted of 58 patients (37 males and 21 females) with orbital trauma (floor and infraorbital rim) treated with open reduction and internal trauma (floor and infraorbital rim) treated with open reduction and internal rigid fixation in the Department of Oral and Maxillofacial Surgery at "Hospital de Base do Distrito Federal", Brazil, between September 1996 and August 2003. The following aspects were evaluated: (1) the average distance of the scars measured from the ciliary margin caudally (2) the aesthetic appearance of the scars (3) chronic lid edema (4) sclera show (5) ectropion. The subciliary incision demonstrated better surgical results when compared to the non-subciliary incisions. No statistically significant difference in chronic lid edema rates was found between the three groups of incisions (Fisher, $p > 0.217$ in all cases). There was no statistically significant difference in ectropion, scleral show and chronic lid edema rates between the three groups of incisions. The subciliary and subtarsal incisions offer better aesthetic results than the infraorbital incision.

Contributed by

Maj R Sharma*, Brig R Sinha*, Col PS Menon (Retd)*

*Graded Specialist (Surgery), MDC Jalandhar Cantt. *Deputy DG (P), O/o DGDS, 'L' Block, New Delhi. *Associate Professor, Vydehi Dental College, Bangalore.

Michael B. Harmonisation of ICD-11 and DSM V: Opportunities and challenges. *British Journal of Psychiatry* 2009; 195: 382-90.

Though the diagnostic and statistical manual of mental disorders, 4th edition (DSM-IV) and international statistical classification of

diseases and related health problems, 10th revision (ICD-10) systems have been enormously beneficial to the field of psychiatry by virtue of defining a common language, studies have found significant diagnostic discordance between the two classification systems in terms of conceptual and nonconceptual differences. Coexistence of two similar but distinctly different classification systems has often led to same disorder being defined differently, undermining credibility of entire diagnostic process. The forthcoming parallel development of DSM V and ICD 11 offers an opportunity to harmonise the two classifications. Author compared both the classification systems, disorder by disorder and a guide of these differences was made. Some differences were either minor or conceptually based but some were extensive and defined different diagnostic constructs. Of the 176 total disorders only one disorder, Transient tic disorder had identical DSM IV and ICD-10 definitions. In 136 criteria sets differences were minor and could be harmonised easily, however 39 criteria sets differed on conceptual basis. Differences were in terms of required duration, frequency or persistence that have no empirical basis. There were also differences in wording of exclusion and in the list of those disorders being excluded. This highlighted the necessity and challenge of limitation in authors understanding of these differences being primarily subjective and assessment of difference primarily on the differences in the wording of criteria. These differences were striking and had varying impact in clinical practice and research. Authors advocated three harmonisation strategies based on their merits (a) to select one of the two systems in toto as unified future classification, (b) to construct new common DSM IV/ICD 10 criteria sets or (c) to select either DSM IV or ICD 10 criteria set in entirety. Each of these has their advantages, disadvantages and obstacles to go through. In the ultimate analysis it is very important that common language of classification comes to be used by all mental health professionals earlier than later.

Contributed by

Brig HRA Prabhu, VSM

Professor & Head (Department of Psychiatry), AFMC, Pune-40.