CATARACT: SENILE, TRAUMATIC AND CONGENITAL

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649462483

Cataract: Senile, Traumatic and Congenital by W. A. Fisher

Edited by Trieste Publishing Pty Ltd.
Cover @ 2017

www.triestepublishing.com

W. A. FISHER

CATARACT: SENILE, TRAUMATIC AND CONGENITAL

Trieste

CATARACT

Senile, Traumatic and Congenital

BY

W. A. FISHER, M. D.

PROFESSOR OF OPHTHALMOLOGY
CHICAGO EYE, EAR, NOSE AND THROAT COLLEGE

CHICAGO
PUBLISHED BY
CHICAGO EYE, EAR, NOSE AND THROAT COLLEGE
1917

CONTENTS

INTRODUCTION

One of the most attractive problems presenting itself to those interested in ophthalmology has been that of opacity of the crystalline lens—its prevention and treatment—which, from an early and quite natural misconception of the pathology of the condition, came to be known and still is described as cataract.

Much has been written in the support and refutation of theories of causation, but we are yet in doubt as to the etiology of all save a very few clinical forms and accordingly little has been accomplished in the matter of prevention. An elaborate classification of forms has come to be accepted, which, however, is of little real value in practice, where it is found that for purpose of treatment primary opacity of the lens falls naturally into one of three groups.

The work that has been done on classification, etiology and prevention does not begin to compare in extent nor brilliancy with that which has been done on treatment on which some of the greatest triumphs of medicine have been scored. It is the purpose of the present volume to review literature of the modern treatment of the condition, especially that of the development of the extraction of the lens in capsule in cases of senile cataract, the credit for first suggesting which seems to belong to Pagenstecher, who, however, left it to later workers to develop methods of operating that are successful in their hands and in those of others who have taken up the work, and finally to give the author's method of intracapsular extraction of senile cataract together with his treatment of the congenital and traumatic forms.

In view of the universal concession that intracapsular extraction with its usual freedom from the necessity of post-operative interference, is the ideal operation, it is unfortunate that this method has not been more generally adopted. The great obstacle in the way of such adoption seems to be the fear of loss of vitreous. Experience has shown that this accident is of less and less frequent occurrence as experience is gained in the operation and that the gravity of the complication is not so great as it is generally thought to be when treated by the methods devised for its management.

A method will be described whereby it is possible to obtain experience in the operation together with that of treatment of its possible complications.

Grateful acknowledgment is made to the various authors and publishers quoted without whose permission much that is pertinent to the subject could not have been made use of.

W. A. FISHER, M. D.

31 N. State St., Chicago.

February 7, 1917.

SENILE CATARACT

A careful study of the literature has elicited the fact that a most concise discussion of the various operative procedures is to be found in "A TEXT BOOK OF OPHTHALMOLOGY," by John W. Wright, M. D., of Columbus, Ohio, the first edition of which appeared in 1896. In this same edition he describes a practical method of intracapsular extraction which he described in an article published in the Ohio Medical Journal in 1884—ten years before the publication of his text book. He continued to perform this operation regularly for thirty years, which entitles him to first place in describing a practical technique for removing a lens in capsule. Wright's operation is not quoted for the purpose of recommending it as being the best method of removing a lens, but because it seemed to be the best at that time and because it will be a great help in bringing out the author's method of operating and dealing with complications that may occur when removing a lens by any method.

Since Wright's discussion is so important, the author has chosen to copy his exact words in the twelve pages that follow:

EXTRACTION OF CATARACT—DIFFERENT METHODS

By JOHN W. WRIGHT, M. D.

"Since the first operation for extraction of cataract, there have been so many methods devised for its performance, and each one has been tenaciously supported by its originator, that the beginner is bewildered as to which particular one to adopt. Like surgical operations in general, no matter what particular method is employed nor how well the operation is performed—however favorable the condition of the patient—failures come, and frequently when least expected; hence the impossibility of a procedure that is invariably successful. No doubt each method for the performance of the operation has its particular advantages as well as its peculiar dangers. Consequently, a searching study of these various methods should be encouraged, adopting the operation or that part of the operation which has been proven by experience to be advantageous—discarding that which has been shown to be hazardous and dangerous.

By many ophthalmologists it is considered that there are but two methods of extraction: The flap operation and the linear extraction—the others being merely modifications of these two. However, for the purpose of discussing this subject in a practical manner, it will be necessary to take into consideration the following as distinct methods: First, the Flap Operation; second, the Linear Extraction; third, the Modified Linear Extraction, or Von Graefe's Method; fourth, Pagenstecher's Method; fifth, Lebrun's

Method; sixth, MacNamara's Method; seventh, Bell Taylor's Method.

The Flap Operation.—Of the different procedures for the object named, there has been none whose result, when a success, is all that could be desired, so much as in this operation. When everything goes well, the result is almost perfect; the patient has a central, movable pupil and the wound heals with such exact apposition that the normal curvature of the cornea is not in the least impaired; but so many accidents are liable to happen, and the after treatment is so troublesome, that the operation has fallen into disrepute.

Among the many objections which are urged against it are: The tendency to suppuration of the cornea, the vigor of the patient generally being unequal to so large an area of cut cornea; the frequency of a prolapsed iris, forcing the edges of the wound apart; the liability of a reflection of the flap, on account of a slight movement of the eye or the lid after the eye is closed, and before the bandage is applied; imperfect coaptation of the lips of the wound, then there is not union by first intention, but by granulation—thus, the normal curvature of the cornea is interfered with, and, as a result, astigmatism.

The Linear Operation.—This operation having undergone so many modifications, it is now hardly recognized under its old name; it is, in fact, generally described as the Traction Method. As described under the head of Gibson's Operation, it consists in dilating the pupil and lacerating the lens capsule with a needle, as if operating for solution—only the capsule must be more freely incised. A few days after the needle operation, an incision is made in the sclero-corneal border, at its upper part, including about one-fourth of the corneal circumference; a curette is introduced into the anterior chamber and turned edgeways, so as to open the wound in the cornea; then by slight manipulation on the lower part of the cornea, the lenticular matter is allowed to escape. No iridectomy is made.

This operation was attended with considerable danger, in consequence of the swelling of the lens, which, from the pressure exerted by it, caused considerable irritation.

Von Graefe's Modified Linear Extraction.—This operation, sometimes called the Peripheral Linear Extraction, was introduced by von Graefe in 1865. The incision lies considerably beyond the sclero-corneal junction, involving the conjunctiva, of which a flap is made. As recommended by its author, the iridectomy should be made some weeks before the extraction; however, the iridectomy is now almost always made at the time of the extraction. The plain points in the operation are simply these: The incision must be made entirely within the sclerotic—beyond the sclero-corneal border, and an iridectomy must always be performed. The merits of this method were much lauded, and it was confidently hoped that the objections which were attendant upon the flap operation would be overcome. This was in a great degree realized, the advantages lying in the small risk of suppurative inflammation. But with the new advantages came new and

intricate dangers. The near proximity of the incision to the ciliary region caused sympathetic ophthalmia with destructive irido-choroiditis, which was liable to attack and cause the loss of the other eye. There is also great danger of losing the eye by carrying the incision too far into the sclerotic and rupturing the hyaloid membrane, causing an escape of the vitreous humor. Another great disadvantage is the tendency to hemorrhage from the conjunctiva into the anterior chamber, thus obscuring the parts and making further procedure difficult. Even though the operation should be successful, there is another important objection; the sight is imperfect and confused by circles of diffusion on the retina, which is always the case when there is a loss of any part of the iris.

Prof. Pagenstecher's Method differs very little from the flap operation. The incision is made as nearly as possible at the sclero-corneal margin with a Graefe's knife; a large iridectomy is also made. By gentle pressure the lens within its capsule is forced out. If the lens is not readily displaced in this way, then a curette is inserted behind the lens and, by gentle traction exerted on it, it is started from its position. The incision is made downwards.

This method, no doubt, is a valuable one, for where the capsule is removed with the lens, there can be no obstruction of vision from portions of it remaining behind, which frequently happens when the lens is removed in the ordinary way; that is, by rupturing the capsule. The passage of the curette behind the lens is dangerous practice, frequently causing a rupture in the hyaloid membrane and a loss of the vitreous. The eye is also subjected to the same dangers as in the ordinary flap operation.

Lebrun's Method makes the incision entirely within the cornea. The knife is inserted opposite the center of the pupil, about midway between the center of the cornea and the sclero-corneal margin; it is carried directly upwards or downwards—according as it is to be an upper or lower flap—on this same line, and consequently the knife will emerge at a point equidistant from the center of the cornea and the sclero-corneal margin. Iridectomy is not performed and, after the lens is extracted, eserine is employed to prevent anterior synechia.

A moment's reflection demonstrates its peculiar advantages, as well as its disadvantages. The corneal wound being so far from the ciliary body, there is little danger of cyclitis; there is not likely to be a loss of vitreous, nor a wounding of the iris whilst making the section. If there is union by first intention, then, as in the flap operation, we have all that can be desired. However, like the flap operation, it is liable to the same dangers, suppuration of the cornea, a reflection of the flap and imperfect coaptation of the lips of the wound. I am very sure that, in this method, there is more danger of a reflection of the flap than in the flap operation; for, in this case, the flap is thinner and has not the support within itself to sustain it, as has the old flap. The wound is extensive and the healing process necessarily slow, especially in persons of feeble constitutions. The object in making the