C A T A R A C T I N R U R A L B E N G A L

BY

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POLOGY. The cataract experiences of an operator whose volume of cataract work was not great, may seem hardly worth recording; and yet in so far as it gives a true account of work done it can claim some right to appear.

Not all cataract operators are able, even in India, to tell of thousands of extractions: many indeed can tell of opportunity for the performance of but tens or twenties annually, and though such may feel that they have no place in the assembly of ophthalmologists, they may still have pondered much on the problems that cataract presents, and have had much interest and pleasure in their small tale of work. It is with this apologia that I enter on my discourse, and for the sake of men thrown into such a concatenation of circumstances as held me. The records of the ophthalmologists only awe and discourage, but the story of what a brother has had the chance of doing, and has done, on the small scale, may encourage and stimulate. In any case, the most of what follows relates to facts - to work done, to failures/

failures and accidents and successes, - and such references as are made to any theory look at the theory from the point of view of actual work performed.

HE PLACE OF THE WORK AND HE PEOPLE.

The work was all done in Lower Bengal, that fertile, rice-growing plain, so full of people, through which the Ganges River and its tributaries flow. The climate there is not among the hottest in India, for its heat is generally moist. So its long stretch of flat fertile field is always green, and interrupted only by rivers, and by trees in green leaf all the twelve months of the year.

The eye has to endure heat and glare, more especially in the months of March to June, and of September and October, but the temperature never reaches the heights frequent in drier regions of India, like the North West Provinces and the Punjab; and the glare seems nothing to dwellers in the sub-burnt sandy wastes of Rajputana or of Sind. Dust-storms, too, are infrequent, and of short duration, and generally end in refreshing rain, but over against this has to be put the more abundant insect life of Bengal, which causes much irritation to the eyes of the people, more particularly after sunset and in the night-time, partly by mechanical action of the/

the creatures on entering the eye, partly by the acrid juices they secrete.

CLEANLY IN HABIT, BUT NOT ROBUST OF BODY.

The people are of a fairly clean habit, being fond of bathing and washing, and accustomed to help their ablutions by the use of oils or soaps applied freely to the whole body. The average villager is not, however, of very robust frame, and anaemia is common as a result of disease, and encouraged by an insufficient diet. Not that their food is itself of an unsatisfactory type, - boiled rice is the staple, and various pulses in the form of thin soups are partaken of along with it. Clarified butter or oil is always added, and the well-to-do include curries of fish or vegetables, or even of eggs or chicken (in spite of religious prejudice). On special occasions the flesh of goats that have been offered in sacrifice at some shrine is eaten, but beef or mutton they never touch. Milk is freely drunk, and fruits - mangoes, plantains, orgnges, and many more - enter largely into their dietary. The very poor, however, and among the patients with whom this record deals these had a large place, have often to be content with the coarsest of boiled rice, accompanied by a relish of herbs of little or no nutritive value.

QUIET LIFE. The peasants' lives are lived quietly in a round of agricultural/

agricultural duty. Anxieties are few if the rain comes in due season, and there are few complexities in the flight of the years. As hardly any of them can read or write, books or letter-writing seldom induce eye-strain, though the shapes of the letters of their alphabet, and the vile type and paper commonly used in printing offer every opportunity of injury to the diligent bookman. Some trades, like weaving, are carried on in the villages, and involve a considerable amount of eye-strain, but weavers are found only in a small number of villages. As a very large number of the sons of village people suffer from myopia and astigmatism when they proceed to literary careers, and study in the High Schools and Colleges, the evidence lies before us that his rude unlettered career alone exempts the peasant from a similar deterioration of vision.

THE PREVALENCE OF CATARACT. Cataract may be said to be very commonly met with in Lower Bengal, but this statement has to be accepted with a qualification. A well-managed medical centre attracts immense numbers of patients from the crowded villages that surround it, for the density of the population is something beyond ordinary imagination of the possibilities of village communities. It is found over large tracts that the people number/

number seven to eight hundred per square mile, - sometimes indeed, even up to a thousand ~~per cent~~, - and this though there is nothing to be called a town in the whole extent of country. Then the people are subject to severe outbreaks of fevers and other diseases, so that they are compelled to seek medical relief to a much greater extent than is necessary in the healthy country districts of the British Isles. When the unhealthy season of the year comes round, the outdoor department of a medical station may be attended by six or seven hundred patients in a single day. It would not then be very wonderful if one found some cataract cases appear every day the door was open, though a large proportion of these might possibly be present for the relief of some quite independent ailment.

However prevalent cataract may be in Bengal, it is by no means so common there as it is in the districts of the North West Provinces which border it. But there are no reliable statistics to guide one in this enquiry, any records that exist being based on a few men's experiences or impressions.

E OF ITS CURRENCE.

One thing may be boldly asserted, and this is that cataract occurs at an earlier age in Bengal than it does in the/

the British Isles. But then old age comes much sooner (if an Irishism may be excused), for the people, like everything that is born with life in such a climate, mature early and are early old. A proverb runs - kuri burhi, which may be rendered, - Twenty-one, Old age begun, - and though this cannot be taken as a scientific statement, "old at forty" quite accurately describes the situation. A man of sixty is aged and venerable.

Cataract, then, is found commonly between the 50th and 60th years of life, and often at 45 or earlier. The bulk of the people of India have no record of their ages, and depend for their ideas on their own or their relations' memories. There is no family Bible to produce, and if they have a horoscope somewhere, it is not a document they are accustomed to refer to. But the margin of error is not likely to be great. In my list of cataracts I find only 10 per cent. of the patients put as over 55. There is no doubt at all as to the occurrence of cataract at a much earlier point in life than ~~it does~~ in Great Britain.

AUSE OF EARLY CCURRENCE.

When we go a step further and seek to find an explanation of the frequency of cataract, and of its occurrence at an earlier age, we enter the realm of debate. One man puts it down/

down to the earlier arrival of senile decay; another blames the diet of the people; while a third attributes the change in the lens to the influence of climatic conditions. When however, one tries to specify the senile changes which occur at an early age in Bengal, one is apt to find oneself at a standstill. The arteries do not seem to show early degeneration, nor even the hair to become prematurely grey. Aneurism is a rare disease, even though syphilis is very common. Cardiac valvular disease, too, does not occur very frequently, a fact which should perhaps be associated rather with the rarity of acute rheumatism than with the question of degenerative changes. Anaemias are very frequently met with, but at all ages, as might be expected in a land where blood parasites, like the plasmodium of malaria and the protozoon (herpetomonas) of kala-azar, are so freely found. There seems thus to be little to lay hold of as showing a clear connection between senile degeneration and the appearance of cataract.

FFECTS OF DIET.

Diet, again, is often blamed for many conditions, and it is a convenient scape-goat; but little or nothing has been found which could be made much of. The people of Bengal, as we have seen, use mainly a carbo-hydrate diet. Proteid from the lentil or legume family is added, though the very poor have/

have to be content with an exceedingly small share of this ingredient, and are able to afford hardly any fat or oil. The rich, on the other hand, indulge freely in sweetmeats made up of cane sugar and butter in varying proportions, and may be said to incur a great liability to diabetes mellitus in consequence. But cataract is indifferent to distinctions of caste and station, affecting equally the rich and the poor.

LIMATIC EFFECTS: HEAT AND GLARE. It has seemed to me that more can be made of the suggestion that climate has a great influence in the production of cataract. Even within the limits of India, cataract prevails much more abundantly in some regions than in others, and this prevalence can very satisfactorily be attributed to the varying climatic conditions. This has been recently argued with much cogency by Lieut.Col. I.J. Pisani in a paper read before the British Medical Association in 1910. He has taken the statistics of cataract operations performed in Indian Government hospitals, and has shown that these increase in number as you pass into the North West Provinces and the Punjab, - that is to say, into the region of dry heat. When you turn towards the plains of Lower Bengal, you find the figures decrease; and Bengal is the region where)

where damp heat prevails more or less for the whole twelve months of the year. Where cataract extractions are most numerous, the dry heat is further accompanied by intense glare, and with the possible influence of this glare, Lieut.Col. Pisani compares the effects produced by their occupation on the eyes of glass-blowers. He also asserts that experiment has shown that intense electric light by itself does not cause cataract though it may lead to other lesions.

An argument like this of Lieut.Col. Pisani based on a limited supply of statistics is always liable to error. One distinguished eye-surgeon of India, who has probably performed more cataract extractions than any other man alive, would have us believe that the varying numbers of cataract patients in the different hospitals are due to the unpopularity of the usual operation. The sufferers are there, but they flee to the refuge of native hakims rather than submit to linear extraction. We might answer him: "Incidit in Scillam qui volt vitare Charybden." The Indian peasant is not so dull a fellow as he is sometimes painted, and will hardly seek relief from ills that are moderate, by resorting to/

to the greater and more abiding ills that follow couching. Pisani's views are probably accurate, but our statistics are insufficient to permit of dogmatic assertion.

CONGENITAL CATARACT AND DIABETIC CATARACT.

I may be permitted now to deal with my own cases more particularly, and to begin reference to them with some detail. And first let me say that congenital cataract was seen occasionally, but that it is not at all common in Bengal. Such were cases B.35, B.36, B.56, B.57, B.197, B.201. Diabetic cataract was also seen, but rarely. The rich and leisured class who provide the bulk of the diabetes patients in Bengal, among whom indeed diabetes is a common disease, formed a comparatively small proportion of the patients who passed through my hands.

CASES SEEN MOSTLY AT A LATE STAGE.

Few patients came complaining of their eyes until a late stage in the disease. It was only very definite loss of vision - a loss which hampered their walking and working - that made the necessary difference to them. So long as it was possible for them to attend to their cattle and their fields, they did not think of applying for help to the doctor. So the condition was usually manifest at a glance - the white milky cataract, which showed up clearly against the blackness of the Indian iris. Occasionally brown or dark-coloured/

coloured cataracts were met with, and these were less obvious to inspection with the naked eye. Glaucoma, too, sometimes had to be differentiated, but it is not a common ailment among these people: at times it was present complicating the cataract, and increasing the difficulty of diagnosis.

CATARACT OLLOWING FLAMMATION.

It may be mentioned that operation was done even in cases of cataract following inflammatory conditions, when hope of any partial success remained. If there was some perception of light, it seemed to be worth while attempting to relieve, as a little vision makes a very great difference to a lonely man or woman at the end of life. For such to be enabled to make their way around the homestead is a very real gain. The operator might be inclined to refuse the case from a consideration of his own reputation, but from the patient's point of view ~~even~~ a mediocre result was not to be despised.

EST SEASON FOR OPERATION.

Among the people the belief was widespread that the best time for the operation was the cold season, and that the rainy months were unsuitable for it. They tended therefore to delay their coming till the winter time arrived, and most of the operations were done in November, December and January. Where cases offered, however, I saw no reason for putting off the operation whether the season was hot weather, cold weather/

weather or rains; and experience confirmed this attitude's reasonableness. Quite as successful results were secured in the hot and in the wet seasons as in the cold, and it was more comfortable for the patients to be in hospital during the warmer months, ~~rather~~ than to have to endure the cold of the winter nights.[*]

THE HOSPITAL AND SYSTEM OF WORK IN IT.

The limitations of the hospital must be mentioned before further details are given. There was no special eye ward - all cases, whether medical or surgical, having to occupy a common ward. The male patients' beds were indeed spread over three wards, but the work did not permit of limiting any one ward to a special type of disease. The female patients were all provided for in one roomy comfortable ward. Then there was a complete absence of nursing: only the great city hospitals in India are able to provide the luxury of trained nurses. Two or three attendants, indeed, more or less instructed, had a general oversight of the male in-patients, and a similar number had charge of the women. It was the duty of these to impress on the cataract patients the importance of keeping/

[*. No system of heating was in use in the hospital.]

keeping quiet after operation, and of refraining from touching or rubbing the eye or the bandages. But no attendant was on duty at night. Sometimes these exhortations were most faithfully obeyed, and the patient lay as still as a corpse for two or three days or more, fearing even to whisper, hardly venturing even to take a drink. Sometimes again the warnings went unheeded: bandages were loosened and dressings removed, perhaps through unconquerable restlessness, perhaps through a desire to take a pepp and learn how the vision was progressing. No wonder then if an occasional suppurating eye was found after the most patient care and the most rigid asepsis. Once cholera came into a ward, and carried off a cataract patient. It was not an unusual experience to find a patient shaking in an ague-fit a day or two after operation - an outburst of malaria determined probably by change of diet, and by breach of the usual routine of life. Any bronchitis or cough was carefully treated beforehand, where such was discovered; but sometimes a distressing cough appeared after extraction, started maybe by a change in the weather or simply by the hospital life. Hardly anything/

anything could be more vexing to the operating surgeon than this, for the Bengali does not understand how to check or suppress the desire to cough. Once or twice retching and vomiting occurred, once as a result of atropine poisoning, and caused much anxiety.

FEEDING OF THE PATIENTS.

Another trouble, and one peculiar to India, arose in connection with dieting arrangements. Caste or religion made it necessary for the patients to be fed by their own relations, or by members of their particular caste. Only those regarded as at the very bottom of the social scale, and such as extreme poverty set free from all restrictions, could be fed by the hospital staff. It was our custom, however, to order the patients to restrict themselves to fluid or semi-fluid food for a day or two, and to have them fed in a recumbent position. Elaborate restrictions in dealing with a simple people are apt to defeat the end for which they are set up, and effort to prevent excessive movement sometimes seemed to lead to extreme exercise of the very muscles one wished to keep at rest. So certain liberties were permitted which would be unnecessary in a home hospital. Thus the smoking of the/

the hooka or water-pipe - which may well be regarded as an item in the daily dietary - was not forbidden except at the very earliest stage of healing.

The patients for the most part wore their own clothing and used their own bed-clothes. In the women's ward, however, where a (European) lady gave some general supervision, in the later years of work, clean clothes and bedding were supplied. Under this lady there were some Indian (Christian) women attendants, who by more continuous attention and care of the patients materially improved the results of treatment.

PERATION ROOM. It was in the Operating Room, however, that western scientific ideas were most fully carried out. The place itself was clean and airy, and its walls were painted with white enamel, while the furniture was modern and "aseptic". There was a special attendant in charge of the sterilising of instruments and dressings, and of the arrangements for the operations, and his work hardly ever brought him in contact with septic material. This proved a most successful arrangement, but it was not possible until the later days of the story.

But/

CONJUNCTIVITIS. The eye itself frequently required some preliminary preparation and medication. Conjunctivitis, acute or chronic, sometimes delayed the operation. In one case, I waited for some weeks, while I made every effort to get rid of the subacute conjunctivitis present. No very great improvement resulted, and at last I did the extraction with the conjunctivitis still present. Healing occurred here as quickly and as satisfactorily as in many a clean, healthy eye. The infection was not such as leads to suppurative invasion of wounds.

PTERYGIUM. Pterygium was frequently present, and various means of dealing with the situation were adopted. Where the pterygium was large and fleshy, e.g. B.63, it was operated on before any attempt at extraction was tried, and after the wound had healed, the cataract was dealt with. In cases of smaller pterygia, it was usually possible to make the corneal flap incision in such a manner as to avoid cutting the pterygium, and its presence did not interfere with the progress of the case, e.g. B.167. Sometimes, however, it was incised in the flap-making, but no inconvenience ensued beyond an unusual amount of haemorrhage.

LEUCOMATA. Leucomata were not uncommonly present, large and small.

The/

The large ones made any satisfactory vision impossible, but even with a leucoma of considerable size, it was found worth while attempting to admit even a little light through a window at the corneal edge. With the smaller leucomata, all that was required was to make the flap in such a quadrant of the cornea as to allow of a useful iridectomy, and to avoid any unnecessary obstruction to vision.

ENORRHOEA OF CHRYMAL DUCT, D DACRYOCYST-IS.

More trouble was given in a few cases by blenorrhoea of the lachrymal duct and dacrypcystitis. One did not care to operate with pus welling into the eye through the punctum lachrymale. In one case I obliterated the sac - No.B.192 - and when this wound had healed, I did the extraction with complete success. On another occasion - No.B.182, one of a few cataract operations done in camp - I failed to notice blenorrhoea of the duct until the day following extraction. The discovery greatly alarmed me, and, after bathing the eye with perchloride of mercury lotion, instead of applying a dressing and bandage, I simply applied a shade, in order to leave free drainage for any discharges. Strange to say, not the slightest trouble followed: the corneal wound healed perfectly, and a good eye resulted. No deduction can of course be drawn from such/

such a case, except that with a thorough washing of the eye before operation, a clean flap wound closes so rapidly that infective germs in the near neighbourhood may not find opportunity to work harm.

SYPHILITIC IRITIS.

Syphilis, too, had to be considered, as it is a very common disease in the district, and often shows itself in the eye in the form of iritis. Where synechia was present, there was always a great probability of its origin being syphilis. In such cases, operation was usually refused, but twice Wenzel's operation was done - No.B.189, and another. The results, however, hardly encouraged repetition.

One of the strangest cases, - No.B.3. ♀ showed no syphilitic lesion in the eye itself, but severe haemorrhage from the iris followed the iridectomy, and the bleeding continued in spite of every effort to check it. It seemed, indeed, as though the patient must have his eye enucleated to prevent death from loss of blood. Finally, however, it ceased, and then the explanation of the trouble was discovered: he had a large number of healed syphilitic scars on his body. Needless to say, the operation was a complete failure.

Some/

PREPARATION OF THE PATIENT

Some preparation of the patient was always attempted. A bath was ordered, and a purge administered, and a change of attire was generally insisted on. As malarial and other fevers, more or less amenable to quinine, are very prevalent, sometimes a few doses of a cinchona mixture were given beforehand, more particularly in the season when fever prevails.

IN THE ERATION ROOM.

The patient was brought along to the operation room on foot, and eucain drops were instilled into the eye. Then his face was washed with soap and water, a nailbrush being used to help in the cleansing of the skin around the orbit. Lotion of perchloride of mercury (1 in 2000) was next applied to the skin, and more dilute perchloride lotion (1 in 10,000) to the eye itself. This was followed by the free use of boric lotion to wash off the sublimate and to help the cleansing. Eucain, with or without adrenalin, was now dropped in, and the speculum inserted.

HE OPERATION.

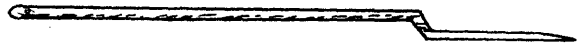
The operation began with the flap-making. Generally, an iredectomy followed, but often capsulotomy was first performed. The influence of Colonel Henry Smith's work at Jullunder led to experimental use of his/

his method, or at least of extraction in the capsule. Here the flap-making was followed by pressure above and below the opening with spoon and strabismus hook. Sometimes a very little pressure caused the lens to come away in its capsule, and a beautiful eye resulted. Sometimes, the pressure, even though very gently applied, caused vitreous to escape, and one regretted having ventured to make the attempt. Generally, when a moderate amount of pressure did not induce the lens to come away, a capsulotomy was done, and iridectomy thereafter, followed by extraction of the lens.

OUGH CAPSULE. Sometimes the order of operation was reversed. A very touch capsule was met with, and capsulotomy proved difficult. So now an attempt was made to extract the lens in its capsule, and again and again this manoeuvre succeeded. It is remarkable how the capsules varied in toughness. Some were so thin and slight that there seemed nothing to incise; some were excessively dense and tough.

DEEP-SET EYES. The making of the flap was sometimes by no means an easy matter where the eye was deep-set, and the orbit small. I always used Graefe's knife, but the desire/

desire to experiment with one of a different type often arose in my mind. A keratome possesses some of the advantages, but a knife with a blade set parallel to the



handle, and on a slightly lower plane, somewhat as illustrated, seemed to me more likely to suit the case. (A knife much after this plan is, I understand, on the market - Taylor's cataract knife - but I have no personal experience of it).

TROUBLE FROM HAEMORRHAGE.

In making the flap, one was often troubled by haemorrhage from the conjunctiva - more especially, as has been already mentioned where there happened to be a pterygium or other pathological thickening, but even without that. The structures were obscured, and not even the use of supra-renal extract (adrenalin or other) was a sufficient preventive. Haemorrhage from the cut surface of the iris after iridectomy was much more abundant and constant; and in order to minimise the difficulties, it was my custom to do capsulotomy before the iridectomy. In a number of cases, no iridectomy was done at all, and the eye thus kept clear of blood; but where the bleeding was great, patience had to be exercised, and free douching with

boric/

boric lotion employed. The clot had frequently to be removed from the lips of the wound, and from between the eyelids by the iris forceps.

Atropine was sometimes instilled, though not usually till the second dressing, and finally the eye was bound up with a dressing of sterilized gauze and a pad of wool.

ESCAPE OF VITREOUS.

Escape of vitreous occurred in 13 per cent. of the cases, but though some of these escapes were probably due to the operator, not all were. Where extraction in the capsule was done, an escape of vitreous is reasonably to be ascribed to the operation employed. But the patients were sometimes alone at fault. Sometimes they seemed to be quite unable or unwilling to resist the desire to contract the muscles, and bring ~~the eyelids' pressure~~ of the eyelids forcibly against the eyeball, during the course of the operation. On several occasions I stopped the operation after making the flap, at the sight of this irresistible tendency to squeeze the eyes shut, for I knew that an abundant escape of vitreous was sure to follow. One* extreme instance of this lives vividly in my memory. The

*B.62

patient/

patient -aMusalman of some position and intelligence - contracted his eyelids again and again during the operation, and ejected a large amount of vitreous: nothing would persuade him to keep quiet. But that was not all. Next day when the eye was being dressed, he began again, and succeeded in ejecting a fresh quantity. Every day the eye was douched the same performance went on, but fortunately there was a limit to the vitreous.

A DEVICE TO PREVENT ESCAPE.

The dread of this most annoying procedure led me to devise a means of prevention. I got my assistant to catch the speculum - Graefe's - and elevate it in situ. This kept the eyelids fixed, and any pressure exerted by them - whether involuntarily or wilfully - was received by the speculum above, and not by the eyeball at all. This scheme, I believe, enabled me to save a number of eyes. It has to be remembered that the people - the Bengalis - possess little self-restraint, and it did not matter to them that they had been carefully warned beforehand.

I have noted that in at least half the cases with escape/

escape of vitreous, good vision was found. Certainly a small escape seems to do no harm; but no operator would willingly see it take place if he could in any way prevent it.

THE COUCHING OPERATION.

As the ancient operation of couching for cataract (depressio or reclinatio cataractae) is still widely performed in India, I had frequent opportunity for the study of its results. Some of the cases retained good vision for years, but others came in the hope of having the ill effect of the operation corrected. Occasionally, I found the lens in the anterior chamber, but more frequently it had risen in the vitreous at a longer or shorter interval after the operation, and obstructed the vision. On several* occasions, I operated in the hope of improving these eyes, but adhesions, or other inflammatory effects were generally present, and made the benefit small.

*E.g. B.45- B.126

The instrument which those operators used was like a blunt paracentesis needle with a piece of dirty rag tied round it to act as a shoulder, and prevent its passing in too deeply. What wonder then that a frequent result is suppuration, ending in a shrivelled eye.

But/

But the operation is condemned not so much for these effects, as on account of irido-cyclitis which almost always supervenes sooner or later. Many such eyes were seen, the severe pain sending the patients to seek relief: and relief it was possible to give in many cases, although the vision could not be saved.

The couching operation, notwithstanding its risks, retains much popularity among the village people. It demands no stay in hospital, and no rigid regulations. Of course we* think it as well that the operator is an unknown itinerant, the ill fruit of whose deeds cannot be reaped by him. But the villagers judgment is different, and some of these operators live quietly in their homes, and attain a reputation which survives their failures. They are known and resorted to as are consulting surgeons in the West.

ISONING EFFECTS
OM ATROPINE
STILLATION.

Atropine poisoning from the instillation of the eye drops is a well-known phenomenon, and the slighter effects were noticed several times. These effects are dryness in the mouth and throat, flushing of the face, etc. One patient, a woman, had prolonged vomiting. But the following is surely a unique case of susceptibility./

[*e.g. Fuchs, ed. sec., p. 767.]

bility.

"Ram Chandra Banerjea, a Brahman, aged 55, of the village Jaluidanga, came to hospital on July 4,1907. He had had an eye operated on for cataract two years ago, and came to show it, as the vision had diminished. I examined with various spectacles and had atropine put into the eye. Then I was proceeding to examine another patient when I was called back to him. He had been sitting on the verandah floor, when suddenly he rolled back with spasms in arms and neck. I found him unconscious, and the spasms continued in both arms, and less violently in both legs. When he was moved, spasms occurred in the muscles of the neck and back, The pulse was good, but his arteries were twisted and atheromatous. The respirations were of Cheyne-Stokes character.

"In the afternoon, the spasms were more violent, and altered in character. He seemed in delirium. At 9 p.m. I saw him again and found him like a man suffering from alcohol intoxication. He could partially understand what was said, but was still full of delusions, and had to be carefully watched.

"July 5. He is quite well; perhaps a little confused."

By a mistake the Bengali assistant repeated the Atropine drops on July 6, when at once there was a recurrence of the symptoms, though in a less severe degree. It was then that we made the diagnosis of Atropine poisoning.

SOME FIGURES.

In conclusion I may give a few figures. The cases as given in the Tables which follow, numbered 263 in all, 49 being performed in one centre (Ranaghat) and 214 in another (Kalna). In two cases there was failure to extract - the one an early case, and the other the very latest of all. In this latter case I took every precaution I could think of to insure success, and was not at all nervous or excited, but failed to extract even by use of the spoon. There were 36 cases of escape of vitreous, and 8 of suppuration. In 14 cases, or 6.6 per cent. the lens was extracted without capsulotomy, and in 12 of the cases no iridectomy was done - 5.7 per cent. In 4 cases, a fluid lens was treated by discission, and one patient had one eye with a fluid cataract, while the other was semi-fluid. This patient was a young woman, 18 years of age, and her cataracts were congenital.

The percentage of good eyes would be about 80, some others acquiring useful vision.

[4.] CATARACT OPERATIONS AT RANACHAT.

DATE	NO:	NAME	VILLAGE	SEX	AGE	CASTE OR RELIGION.	OPERATION PERFORMED	RESULT	N O T E S
1898									
Apr.7	1.	Bibiron	Santipur	F.	40	Musalman	R.Cataract		No perception of light before operation. No vision.
: 18	2.	Mukko	Calcutta	F	55	Christian	R " c.iridectomy and capsulotomy	Good eye	
: 25	3.	Sohochari	Modrupur	F	60	Hindu	L. " Lens escaped into vitreous		No vision
May 19	4.	Nistarini	Rup-pur	F	48	"	R. " Lens broken down and only partly removed		Iridocyclitis. Enucleation
Oct.1	5.	Kamini	Jagooli	F	50	"	R. " c.iridectomy and capsulotomy.	Good eye	
: 5	6.	Nidri	Sirpur	F	48	"	R. " " " " "	Good eye	
: 12	7.	Laksmi	Ichhapur	F	50	"	R " " " " "	Good eye	
: 19	8.	Monda	Kanchrapara	F	38	Musalman	L. " " " " "	Good eye	
Nov.5	9.	Santo	Raghobpur	F	50	"	L. " " " " "		Able to see fingers when she left. Improving.
: 14	10.	Shyan	Kanchrapara	F	40	Hindu	R. " " " " "	Good eye	Haemorrhage. Clot obstructed vision for a while.
Dec.14	11.	Menna		F	45	"	R. " " " " "	Good eye	
: 24	12.	Kedatto	Petna	F	45	"	R. " Very tough capsule: Cystotome failed to rupture.		Irido-cyclitis followed and eye was enucleated.
1899									
Feb.1	13.	Soleimon	Kalgange	F	65	Musalman	R. " c.Iridectomy and capsulotomy.	Good eye	
: 25	14.	Sosi	Guptipara	F	50	Hindu	R. " " " " "	Good eye	
Mar.11	15.	"	"	"	"	"	R. " " " " "	Good eye	
" 11	16.	Hinjal	Minderpota	F	60	Musalman	L. " " " " "	Good eye	
: 18	17.	Bidhu	Bolloopur	F	60	Hindu	R. " " " " "	Good eye	
Ap. 1	18.	"	"	"	"	"	L. " " " " "	Good eye	

[A] CATARACT OPERATIONS AT RANAGHAT, contd.

DATE	NO:	NAME	VILLAGE	SEX	AGE	CASTE OR RELIGION.	OPERATION PERFORMED	RESULT	NOTES
Apr. 1	19.	Kamini		F	45	Hindu	R. Cataract Iridectomy with capsulotomy	Good eye	
May 10	20.	Anna	Kapashdanga	F	55	Christian	R. " " " "	Good eye	
" 10	21.	Anna	Kalna	F	45	"	R. "		Suppuration. Patient "rubbed" eye. Enucleation.
Jul.27	22.	Bakka	Hanskali	F	50	Hindu	R " " " "	Good vision	
Oct.31	23.	Nibaron	Asanagar	F	40	"	L. " " " "		Patient opened Bandage. Iridocyclitis. Suppuration.Enucleation.
Nov.4	24.	Sarat	Khosalpur	F	40	Musälman	R. " " " "	Good vision	
" 8	25.	Bilaksman	Bar Marojachi	F	45	"	R. " " " "	Good vision	
" 8	26.	Sondhaya	Malanchia	F	50	Hindu	L. " " " "	Good vision	
" 18	27.	Kristomoni	Kamapara	F	40	"	L. " " " "	Good vision	
" 27	28.	Bama	Tildaya	F	50	"	R. " " " "	Some little vision	
" 27	29.	Aggwala	Tila	F	55	"	L. " " " "	Fair vision on dismissal.	Improving
1900									
Jan.6	30.	Bindu	Ashmali	F	38	"	R. " " " "	Good vision	
" 21	31.	Bama	Tildaya	F	50	"	L. " " " "		Escape of vitreous. Enucleation
" 30	32.	Bamatarini	Goar	F	48	"	L. " " " "	Good vision	
Feb.10	33.	Khudi	Ranaghat	F	45	"	R. " " " "	Good vision	
" 13	34.	Hormoto	Santpur	F	66	"	R. " " " "	Good vision	
" 20	35.	Binod	Ranaghat	F	38	"	R. " " " "	Good vision	
" 28	36.	Dhoto	Guptipara	F	45	"	R. " " " "	Good vision	
" 28	37.	Gupi	"	F	50	"	R. " " " "	Good vision	

[A.] CATARACT OPERATIONS AT RANAGHAT

DATE	NO:	NAME	VILLAGE	SEX	AGE	CASTE OR RELIGION.	OPERATION PERFORMED.	RESULT	NOTES
1900, contd.									
Mar.21	38.	BAMA	Hanskali	F	50	Hindu	R. Cataract. c.iridectomy.Capsule tough and lens not extracted.		
Ap.16	39.	Soirobh		F	45	"	R. " iridectomy and capsulotomy.	Good vision	
Nov.2	40.	Ujjwala	Ula	F	50	Hindu	R. " " " "	Fair vision	Some capsular cataract.
: 15	41.	Kalidashi	Jogramput	F	45	"	R. " " " "	Good vision	
1903									
Feb.16	42.	Kyanto	Kaitpara	F	60	"	R. " " " "	Fair vision.	
: 16	43.	Bilashini	Joginda	F	46	Christian	R. " " " "	Good vision	Some prolapse of iris
: 23	44.	Shitir	Garapota	F	45	Mussalman	L. " " " "	Good vision	
Mar.9	45.	Shobbo	Gopalnagar	F	50	Hindu	L " " " "	Good vision	
: 9	46.	Tinkori	Dhonkia	F	45	"	L. " " " "	Good vision	
16 16	47.	Kulchand	Hudua	F	47	Mussulman	R. " " " "	Good vision	
Ap. 2	48.	Bhoti	Bhoperpara	F	50	Christian	L. " " " "	Good vision	
Ap. 27	49.	Shobbo	Beliadanga	F	50	Mussulman.	L. " " " "		Suppuration. Eye enucleated.

[B] CATARACT OPERATIONS IN KALNA MEDICAL MISSION.

	DATE		NAME	VILLAGE	AGE	SEX	CASTE	OPERATION PERFORMED.	RESULT.	NOTES
1899.	Nov.	1.	Kalidashi	Salgachi	45	F	Kansari	Cataract R. c. iridectomy and capsulotomy.	Some vision	Prolapse of iris.
	: 23	2.	Laksmi	Debipur	50	F	Sholgop	" R " " "	Fine eye	Left on 8th day
	: 12	3.	Chandra	Horipur	30	M	Napit	" R. " " "	Slight vision	Slight escape of vitreous.Great bleeding after operation.Tied up tightly. Injected ergotin. Bleeding gradually ceased
	Dec.15	4.	Koilash	Kaigram	50	M	Moira	" L. without iridectomy	Fairly good	Vitreous jerked out when I was attempting iridectomy.Twice needled afterwards for capsular cataract. Does all his work.
1900	Jan.8	5.	Dhubou	Ankol	50	M	Machi	" R. c. iridectomy and capsulotomy	Fair vision	Iritis
	: 18	6.	Horidashi	Sanspur	40	F	Kaibarta	" R " " "	Failure	Escape of vitreous. Suppuration (patient put finger in eye)
	- -	7.	Ramdas	Satkule	50	M	Bajdi	" L " " "	Failure	" " " " " E " "
	Nov. 1	8.	- - -	- - - -	- -	-	Brahman	" R. Iris cut in flap-making	Fair eye	Vitreous escaped
	: 8	9.	Nondo	Bosotpur	50	M	Hari	" R. c iridectomy and capsulotomy	Good eye	
	: 15	10.	Golam	Koikhali	60	M	Musal	" R " " "	Good eye	
	: 26	11.	Jadu	Bolagash		M	Jaelia	" R " " "	Good eye	Ran away on 28th
		12.	Hiru	Pathordange		M		" R " " "	Good eye	Rather large coloboma
		13.	Hari	Basna		M		" L " " "	Good eye	
		14.	Matu	Guptipara		M	Moira	" L. Lens and vitreous escaped spontaneously when I was preparing to do iridectomy.		
		15.	Khudi	Supari		F	Lanti	" R. Strained greatly and lens went into posterior chamber and was spooned out.		
1901.	Jan.8	16.	Sunderi	Guptipara		F	Kamor	" R. without iridectomy.	Fair vision	
	: 24	17.	Horik Mondri	Akubpur		M	Sholgof	" L with iridectomy and capsulotomy.	Good eye	Some iritis
	Dec.4	18.	Tinu	Krishnadibpur		M	Bajdi	" R. " " " "	Good vision	No trouble
								" L " " " "		

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION.

DATE	NO.	NAME	VILLAGE	AGE	SEX	CASTE	OPERATION PERFORMED	RESULT	NOTES
1902. Dec.	18	19. Bidu	Kalna		F	Chuter	R. Cataract. c. iridectomy and capsulotomy.		Escape of vitreous. Cirsoid Cicatrix.
:	18	20. Behari Palit	"		M	Kajasth	R. " " " "	Good vision	
:	11	21. Menno	Guptipara		F	Muchi	R. " " " "	Good vision	
:	29	22. Vistu Ram Das	Kormokar		M	Sabni	R. " " " "	Good vision	Fluid. Degen:lens. Conjunctivitis before and after.
:	29	23. Rakhaldarhi	Bagnapara		F	Gowala	R. " " " "	Good vision	Some capsular cataract. Needled later.

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION

DATE	No.	NAME	VILLAGE	AGE	SEX	CASTE	OPERATION PERFORMED.	RESULT	NOTES
1903. Jan. 1	24.	Prosunno	Bagnapara		F	Kormokar	L. Cataract. c. iridectomy and capsulotomy		Suppuration on 4th day.
: 7	25.	Shyam	Morhubon		F	Bajdi	R. " " " "	Good vision	
: 21	26.	Dorbari			M	Musal	R. " " " "	Very good eye	
: 22	27.	Sowrobhi	Biddopara		F	Musal	L. " " " " "	Very good eye	
Feb. 15	28	Mchini	Aukol		F	Hindu	L. " " " "	Good eye	Escape of vitreous.
" 25	29.	Trailokko	Hasonhati		F	Shotgop	R. " After incision lens and vitreous came out with no cause		? High tension eye.
: 25	30.	Giribala	Kalna		F	Kajasth	R. " c. iridectomy and capsulotomy.	Good eye	
Mar. 5	31.	Bhubou	Viso-Horipur		M	Hindu	L. " " " "	Good eye	
Apr. 2	32.	Khiro	Pathorghata		F	Napit	L. " " " "	Good eye	(Right done 2 yrs earlier).
May. 7	33.	Bonko	Ukloti		M	Hindu	L. " " " "	Good eye	Needling. Caps. Cat. Nov.7.
Oct. 31	34.	Modha	Kustea		M	Hindu	R. " " " "		Opened his bandages and was dismissed from Hospital.
Nov. 4	35.	Bholo			F	Bajdi	R. " " " "	Good eye	
: 30	36.	Probodh	Gramkalna	2yrs	M	Brahman	R. Two eyes. Discission		
: :	37.	:	:	:	:	:	L. " " "		
Dec. 23	38.	Sibu	Tehatta		F	Shotgop	L. Cataract iridectomy and capsulotomy.	Good eye	
: 24	39.	Moti Ray	Kalna		M	Brahman	L. " " "	Good vision	

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION

DATE	NO.	NAME	VILLAGE	AGE	SEX	CASTE	OPERATION PERFORMED	RESULT	NOTES
1904.Jan.2	40.	Situ	Tehatta	50	F	Shotgop	R. Cataract. c. iridectomy and capsulotomy.	Suppurated	
: 25	41.	Boroda	Sulgache		M	Hindu	L. " " " "	Good vision	
: 26	42.	Bhubon	Begune (v.Feb.5)		M	Kaibarta	R. " " " "	Good vision	
Feb.2	43.	Hiru	Isopur		M	Bagdi	L. " " " "	Good vision	Escape of vitreous. Iris accidentally button-holed and in this lens caught. This delayed extraction and led to vitreous escaping. Unsuccessful. Lens broken up but not extracted. Some vision resulted. Needling afterwards.
: 5	44	Bhubon	Begune		M	Kaibarta	L. " " " "	Good vision	
: 9	45	Sonamoni	Narenga		M	Hindu	Attempt to extract lens in post. chamber after couching.		
: 16	46.	Nistarini	Ekchaka		F	Hindu	R. Cataract. c. iridectomy and capsulotomy.	Good vision	
: 17	47.	Gimbala	Kalna		F.	Hindu	R. " " " "	Very good vision	Struggling of patient led to escape of vitreous.
: 19	48.	Behari	Kulepara			Bagdi	R. " Without iridectomy.	Good eye	
: 20	49.	Bonomali	Solghora		M	Hindu	L " c. iridectomy and capsulotomy	Good vision	Escape of vitreous.
: 23	50.	Mohamodi	Senpur		M	Musal	L. " " " "	Good vision	
: 23	51.	Mitza	Balagarh		F.	Jaeliya	L. " " " "	Good vision	Some iritis.
: 23	52.	Putti	Bhowanipur		F	Charikaibatta	L. " " " "	Good vision	
: 25	53.	Tarok	Dhatrigran		M	Chunari	R. " " " "	Good vision	Left 4th day without permission.
Mar.3	54.	Makom	Khagrakal		F	Charikaibat	L. " " " "	Good vision	
: 5	55.	Moti	Bhadure		M		R. " " " "	Good vision	
: 5	56.	Dharmadar	Saumdragarh		M	Hindu	Congenital Discission		
: :	57.	"	"		"	"	" "		
: 12	58.	Imambox	Manikha	70	M	Musal.	R. Cataract. c. iridectomy and capsulotomy.		Lens removed with difficulty. Some vitreous escaped owing to straining of patient.
: 12	59.	Kangali Ray			M	Kayasth	R. " " " without capsulotomy		

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION

DATE	No.	NAME	VILLAGE	AGE	SEX	CASTE	OPERATION PERFORMED	RESULT	NOTES
1904. Mar.12	60.	Mukshoda Dhatri	Goda	45	F	Hari	L. Cataract. c. iridectomy and capsulotomy	Good vision	
cont. May 23	61.	Ujjwal	Horipur		F	Hindu	R. " " " "	" "	
Jun. 6	62.	Tokolox	Umorpur		M	Musal	R. " " " "		Vitreous escaped after operation owing to patient's straining. Large pterygium previously removed.
Nov.28	63.	Ujjwala	Horipur (v.May 23)		"		L. " " " "		Iritis.
: 28	64.	Mukshoda	Goda (v.Mar.12)		F	Hari	R. " " " "		
: 28	65.	Mongola	Goda	50	F	Bagdi	R. " " " "	Good.	
Dec. 7	66.	Shyam	Guptipara		M	Muchi	L. " " " "	Good eye	Slight escape of vitreous during toilet.
: 7	67.	Fulbasi	Balagarh	55	F	Buno	R. " Without iridectomy or capsulotomy	Good eye	Patient struggled and the lens came away with some vitreous.
: 7	68.	Hori	Samudragah	55	M		L. " c. iridectomy and capsulotomy	Good eye	
: 7	69.	Shyam	Guptipara (v.Dec.7)		M		R. " " " "	Good eye	
: 7	70.	Shyam	Samudragah		M		R. " " " "	Good eye	
: 7	71.	Langiya	Chapra District		F		L. " " " "	" "	
: 7	72.	Jodu	Ekchaka		M	Muchi	L. " " " "	" "	
6.									
1905. Jan.1		Kangali Banergea		55	M	Brahman	L. " " " "	Good eye	
4. : 2		Bhuson	Ulo		M	Dule	L. " " " "	Good eye	
15. : 30		Brojo			F	Shotgop	L. " " " "	Good eye	
16. : 30		Satkori	Saira		M	Hindu	L. " " " "	Good eye	

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION

DATE	No:	NAME	VILLAGE	SEX	AGE	CASTE	OPERATION PERFORMED	RESULT	NOTES
1905 Feb.6 contd.	77.	Mukko	Guptipara	F		Gowala	R. Cataract. c. iridectomy and capsulotomy		Second eye.
: 9	78.	Nistarini	Ekchaka	F		Hindu	L. " " " "		
: 22	79.	Peary	Kalna	F		Kayasth	L. " " " "		
: 22	80.	Nchorchanda	Guptipara	M		Chandal	L. " " " "		
: 22	81.	Sukko	Panchrokki	M		Bagdi	R. " " " "		
: 27	82.	Protap	Thenktipota	M	60	Hindu	R. " " " "		
: 27	83.	Chandra	"	F	55	Hindu	R. " " " "		Iridectomy afterwards for prolapse of iris.
Mar.8	84.	Anna	Kapashdanga	F		Christian	L. " " " "		Iridectomy afterwards for prolapse of iris.
: 9	85.	Protap	Thenktipota	M		Musal.	L. " " " "		
: 9	86.	Chandamoni	"	F		Musal	L. " " " "		
: 9	87.	Bhoto	Dhatrigram	F		Hindu	R. " " " "	Good vision.	
: 9	88.	Jadu Sheikh	Memimpur	M		Musal	R. " " " "	Good vision.	
: 9	89	Mohimi	Kalna	F		Hindu	L. " " " "		Suppuration and Enucleation.
: 9	90.	Golindo Mundy	Puntba	M		Hindu	R. " " " "	Good vision.	
: 9	91.	Bireswar	Bidjantopur	M		Hindu	R. " " " "		
Apr.4	92.	Jodu Sheikh		M		Hindu	L. " " " "	Good vision.	
: 4	93.	Bhoto		F		Musal.	L. " " " "		Iritis, adhesion of iris, and corneal opacity. (Seen a year later)
: 9	94.	Hoybot Morsl	Raygaon	M		Musal.	R. " " " "		Iritis
Jul.6	95.	Nawabjan		M		Musal	R. " " " "	Good eye.	
: 6	96	Jogneswar		M		Hindu	R. " " " "	Failure to extract.	Lens slipped into posterior chamber. Eye withered up. Man as deaf as a post.

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION. contd.

DATE	NO.	NAME	VILLAGE	SEX	AGE	CASTE	OPERATION PERFORMED	RESULT	NOTES
1905 Jul.6	97.	Baburam		M		Hindu	R. Cataract. c. iridectomy and capsulotomy	Good eye	
Oct.26	98.	Hari Sardar	Kangalpur	M		Hindu		Good eye	A good deal of haemorrhage.
Nov.9	99.	Mani		F		Hindu	R. " " " "		
: 9	100.	Rani		F		Hindu	R. " " " "		
: 9	101.	Ram Ch.Banerjea	Jalmdanga	M		Brahman	R. " " " "	Very nice eye	
: 9	102.	Must.Kormokar	"	M		Kamar	L. " " " "		Iritis. Ran away.
: 23	103.	Nitya		F		Hindu	R. " " " "	Fine eye	Well in two days.
Dec.7	104.	Tontonesa		F		Musal	L. " " " "	Good eye	
: 7	105.	Mobin	Japur	M		Musal	L. " " " "	Good eye	See Feb.1907.
: 19	106.	Gopal Gupta		M		Hindu	R. " " " "		
: 22	107.	Mojahar		M		Musal	L. " " " "		Some vitreous escaped immediately after flap-making. A good deal of capsule visible.
: 28	108.	Moksed		M	28	Musal	R. " No iridectomy		Seemed to be communication between anterior and posterior chambers and cataractous lens in capsule floating in vitreous. Vitreous escaped. Anterior chamber very deep, almost like conical cornea. See also Jan.6
: 28	109.	Showdagar	Bollcopur	M		Christian	R. " c. iridectomy and capsulotomy		
: 28	110.	Bhubon	Mahanad	F		Napit	L. " " " "		
1906. Jan.1	111.	Jagannath	Korola	M		Hindu	R. " " " "		
: 6	112.	Moksed.	(See Dec.28 1905)				L. " " and without capsulotomy		Extracted in capsule. Vitreous did not escape. Ant.chamber as noted formerly. Large cornea.
: 22	113.	Shodu	Samudrajarh	F	50	Shotgop	L. " c. iridectomy and capsulotomy		Right eye had been destroyed by couching.
: 22	114.	Kalidas Rakhit	Santipur	M	60	Panti	L. " " " "		Right eye also cataractous but without perception of light. Left eye seemed to have less than normal sense of light and after operation the man could see movements of fingers but not distinctly the fingers themselves.
: 27	115.	Nawaljan	"	M		Musal.	L. " " " "		

B. CATARACT OPERATIONS IN IN KALNA MEDICAL MISSION. Contd.

No.	DATE	NAME	VILLAGE	SEX	AGE	CASTE	OPERATION PERFORMED	RESULT	NOTES
1906. contd.	Feb.10	Nidhiram	Gobindobati			Hindu	L. Cataract.	c. iridectomy and capsulotomy	After incision and iridectomy, a good deal of vitreous escaped. Vitreous in some quantity extruded along with lens in capsule.
117.	: 10	Hiru	Sarenda			Hindu	R. "	c. iridectomy.	
118.	: 13	Prollad	Gueypara	M		Chandal	R. "	c. iridectomy and capsulotomy. Good vision	
119.	: 26	Podino				Hindu	R. "	" and without capsulotomy	Ejection of lens in capsule with escape of vitreous.
120.	: 26	Borodamukerjea	Salgachi				R. "	c. iridectomy and capsulotomy	Suppuration.
121.	: 26	Bhubon	Mahanad	F		Napit	R. "	" " " Good vision	
122.	Mar.2	Budhaya	Noripur (a mild lunatic)	F			R. "	" " " Fair vision	UnderCHCl. after 2 attempts under Euc.
123.	: 29	Sarba	Peto	F		Musal	R. "	" " " Fair vision	Pulling on iris. Scissors blunt.
124.	: 29	Poosunno	Kesobpur	F		Gowala	L. "	" " "	Suppurated.
125.	29	Champa	Saydapur	F			L. "	" " "	Suppurated.
126.	Apr.2	Makcu		M					Cataractous lens extracted from post. chamber. Perception of light.
127.	: 12	Irgotarini	Guptipara	F		Kayarth	R. "	c. iridectomy but without capsulotomy. Good vision	Some vitreous escaped. Slight prolapse of iris.
128.	19	Modhumot	"	F			L. "	c. iridectom y and capsulotomy	
129.	Jul.5	Laksman Acharge	Badla	M		Brahman		Some slight vision	Suppuration (slight).
130.	5	Nistor	Nondofram			Taelw	R. "	Without iridectomy but with capsulotomy.	
131.	Nov.7	Moni	Agnori	F	60		L. "	c. iridectomy and capsulotomy. Very good vision	
132.	: 21	Sahibjan	Raygaon	M	50	Musal.	R. "	" " " Very good eye	
133.	: 29	Chandamoni	Shinktipota	F	42	Musal.		Capsular cataract needled.	
134.	: 29	Rani	Mahanad	F	45	Musal.	L. "	c. iridectomy and capsulotomy	
135	Dec.1	Kinu Sheikh	Telpalamemari	F	50		L. "	" " "	Iridectomy done (inadvertently) in making flap.

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION

DATE / No.	NAME	VILLAGE	SEX	AGE	CASTE	OPERATION PERFORMED	RESULT	NOTES
1906. Dec.1	Ahadu Sheik	Kulipara	M		Musal.	L. Cataract c. iridectomy and capsulotomy	Good.	Extracted all right, but old retinitis prevents vision.
contd. 137 : 4	Sahel jan	(see above)	M		Musal	L " " " " "	Good	
138. : 27	Khiroda	Thornbate	F				" "	
139. : 27	Rachel Gurama	Ratnapur	F	55	Christian	L. " " " " "	Very Good	
140. : 29	Ujjwala	Khorgachi	F	50	Musal.	L. " " " " "	Good.	
1907. Jan.3	Toposhyi	Shinkipota	F		Musal.	L. " " " " "	"	
142. : 3	Shyama		F		Tili	L. " " " " "	"	
143. : 19	Hori	Natagarh	M		Shotgop	R. " Escape in capsule with vitreous immediately after flap was made.	Fairly good vision	
144. : 19	Rachel	Ratnapur	F		Christian	R. " c. iridectomy and capsulotomy	Good	
145. : 19	Ujjwala	Khorgachi	F		Musal.	R. " c. capsulotomy " iridectomy	"	
146. : 25	Makhom		F		Kaibarta	L. " " " " "	"	
147. : 28	Chantamoni		F		Hindu	R. " " " " "	"	
148. : 28	Kamini		F		Kaibarta	L. " " " " "	"	
149. Feb.1	Dasu		F	50	Hindu	L. " " " " "	"	
150. : 1	Sonamoni		F			L. " " " " "	"	
151. : 1	Mobin	Japur	M	4-	Musal.	R. " c. capsulotomy and iridectomy after extraction.	Good	Has good vision in eye since Dec.7, 1905 (See No.105).
152 Mar.5	Susormojee	Bire	F.	50	Shotgop	R. " c. capsulotomy and iridectomy.	Good vision.	A good deal of vitrecus escaped.
153. " 5	Makhom	"	F		Bagdi	R. " " " "	"	
154. : 6	Hireedoy	Bankule	F			L. "	Good	Traumatic cataract.

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION

DATE	No:	NAME	VILLAGE	SEX	AGE	CASTE	OPERATIONS PERFORMED	RESULT	NOTES
1907.Mar.14	155.	Gourmoni	Santipur	F	55	Napti	L. Cataract. c. capsulotomy and iridectomy.	Good vision.Very good eye	Escape of vitreous.
contd. 14	156.	Nahori	Bere Monidpur	M	55	Kolu	L. " " " "	Very good eye	
May.	157.	Denu	Guptipara				L. " " without iridectomy.	Fair vision	
Jul.4	158.	Nitya	Nischintapur	F	50	Hindu	R. " " and iridectomy	Godd vision	Under $CHCl_3$ and Eucain, after two attempts with Eucain only had failed through his timidity.
: 9	159.	Nokur					L. " " " "	Very fair vision	
: 29	160.	Satkori		F	40		L. " " " "	" "	Healed quickly with no reaction.
: 30	161.	Saila	Sogno	F	42	Kolu	R. " " " "	Good eye.	
Aug.5	162.	"	"	"	"	"	L. " " " "	" "	Also removal of Pterygium.
: 12	163.	Satkori		F	40		R. " " " "	" "	
: 19	164.	[Name omitted]					R. " " " "		After operation was over, violent movement of patient led to extrusion of vitreous.
1908. Dec.26	165.	Bhuson	Pundnah	M	50	Dule	L. " c. iridectomy and capsulotomy.	Very good vision.	
: 30	166.	Brojesweri	Satjachi	F	50	Jaele	L. " " " "	Good vision.	

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION. contd.

DATE	No.	NAME	VILLAGE	SEX	AGE	CASTE	OPERATION PERFORMED	RESULT	NOTES
1939.Jan.5	167.	Kalichoron	Changa	M	60	Shotgop	L. Cataract. c. capsulotomy and iridectomy.	Good result	Has pterygium. Other eye withered after operation in Calcutta.
: 5	168.	Golam	Santipur	M	50	Musal	" " " "	Good vision.	
: 9	169.	Bakom	Bhuimoh	F	50	"	R. " " " "	Good vision	
: 9	170.	Mohalaksmi	Santipur	F	50	Fanti Boistom	L. " " " "	Good	
" 11	171.	Machom	Bhuimoh	M	45	Musal.	R. " " " "	Very good result	
: 28	172.	Dwarik	Beledanga	M		Brahman	L. " " " "		Escape of vitreous after extraction was completed (from jerking) and haemorrhage from iris.
Feb.17	173.	Motleb	Baladighi	M		Musal	L. " " " "	Good.	
Mar.2	174.	Shyama		F	40	Hindu	L. " " " "	"	
: 12	175.	Shyam	Santipur	F.	60	Boistom	R. " " " "	"	Done in two operations.
Jun.16	176.	Bonko	Ugloti	M	60	Shotgop	R. " c. iridectomy. Extracted in capsule	"	
: 27	177.	Mirat Sheik	Batchora	M	55	Musal.	R. " " " " "	"	
Jul.12	178.	Bonomali	Mirzapur	M	55	Musal.	R " " " " "	"	
: 15	179.	Pitambar	Kapashdanga	M	55	Jaele	L. (unripe) " " " "	"	
: 15	180.	Matu Mullik	Biber Hat	M.	50	Musal.	L. Cataract. c. iridectomy and capsulotomy	Good vision	
Nov.18	181.	Horesh	Mihorpur(Nadia)	M.	55	Kaibarta	L. " " Extracted in capsule	Good vision	Dry eye on 3rd day.
: 27	182.	Krishnadashu	Gramkalna	F.	50	Hindu	R. " " and capsulotomy.	" "	Blenorrhoea present. No ill effect.
: 27	183.	Soiroth	Kanibondo		55		R. " No iridectomy. Extraction by spoon.	Vision not good.	Escape of vitreous. Wound healed well. High tension eye?
Dec.1	184.	Golap	Solghora	F	35	Bagdi	R. " c. iridectomy and capsulotomy	Very good eye	
: 1	185.	Behari	Alghor	M	45	Dom.	L. " " " "	Good vision after slight iritis.	Healed with no reaction.

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION.

DATE	No:	NAME	VILLAGE	AGE	SEX	CASTE	OPERATION PERFORMED	RESULT	NOTES
Dec.31	186.	Hemnolini	Santipur	45	F	Fanti	R. Cataract. c. iridectomy and capsulotomy.	Good vision.	
:	30 187.	Rakhaldashi	Kanpora	45	F	Gowala	R. " " " "	Good vision.	
Jan.5	188.	Jibon	Santipur	45	F	Fanti	R. " c. capsulotomy and iridectomy.	Good vision.	Eye dry on Jan. 9.
:	8 189.	Mahendra Ghose	Gopalpur	48	M	Gowala	L. " by Wenzel's method.	Some perception of light.	Cataract removed easily with spoon. (post.synechia and shallow anterior chamber.)
:	8 190.	Rakhaldashi	Kanpara (See Dec. 30, 1909				L. " c. capsulotomy and iridectomy.	Good vision.	Iridectomy done and attempts to extract in capsule. Did not come readily and capsulotomy done.
:	12 191.	Jibon	Santipur (See Jan.5)				L " c. iridectomy and lacer.of capsule.	Good vision.	
:	13 192.	Hemnolini	Santipur (See Dec. 31, 1909)				L. " " " "	Good vision.	No trouble. Blenorrhoea & dacryocystitis first treated by obliteration of sac.
:	15 193.	Mahendra Ghose	Gopalpur (See Jan. 8.)				R. "	Some vision.	
:	29 194.	Biroda	Begune-Khagrakal	45	F	Kaibarta	L. " c. iridectomy and capsulotomy.	Good vision.	
Feb.4	195.	Duraniya	near Tribene	50	F		R. " " " "	Good vision.	
:	4 196	Mohini	Jopomathpur	37	F	Barni	R. " c. iridectomy but no capsulotomy.	Good vision.	Escape of vitreous. Cystoid cicatrix. Iridectomy done inadvertently in making flap.
:	5 197.	Radha	Tildanga	18	F	Kaibarta	L. " c. iridectomy and capsulotomy.	Good vision.	Fluid cataract. Iridectomy done inadvertently in making flap.
:	11 198.	Biroda	(See Jan. 29)				R. " " " "	Good vision.	Rather prolonged conjunctivitis.
:	11 199.	Thako	Santipur	50	F	Fanti	R. " " " "	Good vision.	
:	12 200.	Kamini	Hasonhati	50	F		R. " " " "	Good vision.	
:	12 201	Radha	(See Feb. 5)				L. " c. capsulotomy and no iridectomy.	Good vision.	Semi-fluid cataract.
:	16 202.	Moti	Norenga	50	M	Musal	L. " " " "	Good vision.	
:	19 203.	Moniya	Chapra Distr.	48	F	Bini	R. " c. iridectomy and capsulotomy.	" "	Took a lot of coaxing. Large cataract. Under chloroform.

B. CATARACT OPERATIONS IN KALNA MEDICAL MISSION

DATE	No.	NAME	VILLAGE	AGE	SEX	CASTE	OPERATION PERFORMED	RESULT	NOTES
1910 Feb.22 contd.	204.	Mohini	(See Feb.4)				L. Cataract. c. iridectomy and capsulotomy.	Good.	Under chloroform.
: 22	205.	Kamini	(See Feb.12)				L. " " " "	Good vision.	Some difficulty in extraction perhaps through inusfficient capsulotomy owing to blood obscuring. Some vitreous escaped.
: 22	206.	Thako	(See Feb.11)				L. " " " "	" "	
: 22	207.	Srish	Samudragat	55	M	Muchi	L. " c. capsulotomy and iridectomy.	" "	Good bit of conjunctival flap.
: 25	208.	Kailash Beg	Hatgacha	48	M	Kaibarta	R. " " " "	" "	Some capsular cataract.
: 25	209.	Kshetra	Kodomba	52	M	Shotgop	L. " c. iridectomy but no capsulotomy.	Good vision.	
: 28	210.	Shyama		55	F	Kola	L. " c. capsulotomy and iridectomy.	" "	
: 28	211.	Golap	Narenga	48	F	Musal	L. " " " "	Good vision.	
Mar. 1	212.	Sahedon	"	45	F	Musal	L. " c. iridectomy.	Good vision.	Capsule did not rupture, so lens was extracted in capsule. A little vitreous escaped.
: 1	213.	Hori	Kodomba	45	F	Shotgop	R. " c. iridectomy and capsulotomy.	Good vision.	
: 1	214.	Mata	"	55	F	"	R. " Failure to extract. Escaped into posterior chamber.	No vision.	Patient gave a lot of trouble. Eye deep-set.