

Day-case cataract surgery

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SUMMARY The results of 501 day-case cataract extractions are presented. This is a safe way to manage an operation for which there will be an increased demand. Only 13% of these patients stated that they would have preferred to stay in hospital after surgery.

Since our confirmation¹ that it is reasonable to do cataract surgery on a day-case basis we have received a number of visits and inquiries about what actually happens in practice. Subsequent cataract patients were carefully monitored, and we report now the results of 292 patients who had operations immediately after the previous series. 276 of these had 501 day-case cataract extractions, and their reactions/response to operation without admission to hospital have been assessed, together with the visual results.

The choice of programme for the management of cataract surgery must depend on the results in terms of vision and patient satisfaction, provided of course that those who need operation can have it. We remain convinced that day-case management is preferable to admission to hospital for most patients.

Patients and methods

PATIENTS

Two hundred and seventy six patients had a total of 501 cataract extractions performed under local anaesthetic as day-cases. Two of these patients went to a convalescent home after operation. Twelve patients (11 under the age of 50 years) required general anaesthesia and were retained in hospital for one night after operation. Two patients had bilateral cataract extraction under local anaesthetic while they were in hospital for medical conditions: (i) arthritis and varicose ulcers; (ii) stabilisation of diabetes. One patient was retained in hospital because bad weather prevented his return home on the day of operation. One patient's retention in hospital was planned, because she was the one who had an expulsive haemorrhage in our previous series. Total: 292 patients.

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Many of these patients had a variety of the medical conditions which could ordinarily be associated with their age. Nobody was excluded from this review for any medical or social reason.

Three patients had 360° prophylactic cryopexy of retina before cataract extraction because of retinal detachment in the other eye. Four patients had bilateral simultaneous cataract extraction under local anaesthetic as day-cases.

40% of the patients had no living spouse, but half of these lived with relatives or a friend. The other half (20% of the total) lived alone, although 4 out of 5 of them had some support from neighbours, friends, or a home help. 4% of the total had no support at all, apart from the district nurse.

METHODS

Protocol for managing cataract surgery

(1) *Interview with trained nurse*, preferably at the time that surgery is advised. (a) Operation date arranged. (b) Medical and surgical history is recorded. (c) Social history: family commitment; need for social services involvement. (d) Operation procedure explained, and written instructions given regarding post-operative activity.

If the patient is not seen at the main hospital clinic, a preoperative visit by social services and/or nursing staff is arranged.

(2) *Day of operation*. (1) Welcome to ward. (2) History rechecked. (3) Temperature, pulse rate, respiration rate, and blood pressure measured, urine analysis done, lashes cut, consent to operation signed. (4) Details of discharge procedure given to relatives.

(3) *Operation*. (1) Restricting clothing removed and gown placed over remaining clothes. (2) Local anaesthesia used. Retrobulbar and facial nerve injections of lignocaine 2% with adrenaline. Cocaine drops to eye. (3) Ab externo incision under a limbus-

Table 1 Visual results

Age	Visual acuity									
	6/5	6/6	6/9	6/12	6/18	6/24	6/36	6/60	<6/60	?
50-54	1	4	3	2	—	—	—	—	—	—
55-59	5	3	5	—	—	—	2	—	2	—
60-64	3	16	7	3	1	—	—	1	3	—
65-69	9	32	10	9	1	2	—	2	1	4
70-74	8	35	30	15	8	—	—	1	9	—
75-79	7	33	37	19	4	2	2	7	4	5
80-84	2	17	28	16	8	2	1	3	3	—
85-89	—	3	12	3	7	1	4	—	8	8
90+	—	—	8	5	3	—	—	—	—	2

based conjunctival flap. Lens removed, usually with Cryoprobe. No intraocular lenses were inserted. Virgin silk corneoscleral sutures (1 or 3 depending on surgeon—R.I. or D.B.). 6/0 plain catgut sutures to conjunctiva. Pilocarpine drops 8% (round pupil) or atropine 1% (keyhole pupil) and neomycin drops instilled. Eye covered with a pad.

(4) *Immediate postoperative care.* Reasonably free mobility allowed with nursing supervision. Analgesics as required. First dressing 3-4 hours after operation. Appropriate eye drops instilled. Glasses—plain dark or aphakic trials given. Instructions given for continuing care: (1) Do not touch eyes. (2) Keep glasses on day and night for one week. Sleep on back or propped up, but not on side. (3) Patient warned of visual distortions with trial glasses. (4) Mobility encouraged with care. Home at approximately 17.00 h.

(5) *Home visit by trained nurse next day.* (1) Inspection of eye. (2) Eye bathed. Atropine drops 1% and Predsol-N (prednisolone and neomycin) instilled. (3) Instructions given to patient's relatives regarding once daily instillation of eye drops. (4) Discussion on likely problems and *reassurance*. (5)

Table 2 Pathological conditions thought to explain poor acuity

Pathological condition	No. of eyes
Preoperative corneal opacity	3
Vitreous haemorrhage	2
Diabetic retinopathy	6
Retinal vein thrombosis	5
Senile macular degeneration	14
Myopic macular changes	3
Retinitis pigmentosa	1
Iris prolapse	1
Amblyopia	3
Optic atrophy	2
Preoperative glaucoma	4
Uveitis	2
Previous retinal detachment surgery	2
Secondary carcinoma (bronchus)	1
Unknown	11
Total	60

Information given for second eye operation, or follow-up clinic appointment.

(6) *Postoperative follow-up.* The patients attended the hospital outpatient clinic 1 week, 3-4 weeks, and 7-8 weeks after operation. On this last visit they were refracted and spectacles prescribed. A questionnaire on their own reactions to day-case cataract surgery was also completed.

Results

Sixty eyes (12% of those vision was known) achieved an acuity of 6/24 or less (Table 1). The pathological conditions present in these eyes and thought to explain the poor acuity are shown in Table 2. The operative and postoperative complications are shown in Table 3.

The patient's view

When the patients attended for refraction and prescription of spectacles, they were asked a number of questions on a questionnaire. Answers from 32 patients were not available for a variety of reasons—for example, answers too indefinite, patients unfit to attend or answer coherently, some had already died, records mislaid.

The questions and answers, together with some of our observations on these answers, are summarised here.

(1) Question: Were you in any way upset by the

Table 3 Operative and postoperative complications

Complications	No. of eyes
<i>Operative</i>	
Extracapsular extraction	16
Extracapsular extraction + vitreous loss	1
Vitreous loss	14
<i>Postoperative (to date)</i>	
Iris prolapse	4
Retinal detachment	2
Panophthalmitis	0

Table 4 Answers to question 5

	Male	Female	Total
Preferred home	78 (78%)	106 (73.6%)	184 (75.4%)
Preferred hospital	5 (5%)	26 (18%)	31 (12.7%)
Indifferent	17 (17%)	12 (8.3%)	29 (11.9%)
Totals	100	144	244

operation? Answer: yes 22%, no 78%. Observation: There would possibly have been a similar answer after treatment for a chalazion.

(2) Question: Were you fit enough to attend the hospital outpatient department on the day after operation if this had been requested? Answer: yes 77%, no 23%.

(3) Question: Did you have any difficulty with your sight? Answer: At 1 week after operation, no 51%, yes 49%; at 2 months after operation, no 77%, yes 23%. Observation: Many said they had no trouble at all, but others in response to direct questioning admitted difficulty in judging distances and crossing roads, bumping into things, etc. Under these circumstances their answers were recorded as 'Yes.' This is a very subjective answer and it is important to remember that at both times patients were still wearing aphakic trials glasses or plain glass.

(4) Question: How soon after operation did you return to your normal duties or way of life? Answer: 1 week, 66%; 4 weeks 87%; 2 months 95%; not really 5%. Observation: The answers to this question reflect not only their vision but also how they felt generally as a result of operation. 'Normal way of life' covered a very wide range of activities from return to work to a daily walk or simply watching television.

(5) Question: In retrospect would you have preferred to stay in hospital or go home after operation? For analysis of answers see Table 4. Observation: The answers of those living alone were exactly in line with the sample as a whole.

The services of a District Nurse were required for 22% of patients. This mainly required daily instillation of drops. It was necessary for the hospital to provide transport for postoperative outpatient visits for 30% of these patients.

Discussion

When surgeons require their patients to remain in hospital after operation they do so basically for 2 reasons. Firstly, they think the patients will not feel, or be, well enough to go home. 78% of these patients were not upset in any way by the operation under local anaesthetic, and with reassurance and a little encouragement all were quite capable of going home within 4 hours of operation. General anaesthesia is not necessary for routine cataract surgery, but when it

is required we agree that the patient should be retained in hospital overnight. Secondly, surgeons think it is not safe for patients to go home straight away, implying that hospitalisation will reduce the incidence of complications. In our view much depends on what happens at the time of operation, but in respect of the 2 complications most relevant to the question of day-case surgery, iris prolapse and panophthalmitis, the advantages of hospitalisation appear to be marginal, if any.

The timing and nature of the questions asked in this attempt to assess the patient's reaction to the operation and events afterwards may not be ideal (we are aware of only one other attempt² to do this). The information was obtained while patients were wearing trial lenses of +11.00 DS with a bifocal addition, or plain glass. Interpretation of answers given to individual questions is obviously subjective and personal, but whenever the slightest doubt was expressed by a patient the answer was recorded as being unfavourable to day-case management. Nevertheless, we believe that an overall picture has emerged.

Three-quarters of the patients were not affected by the operation or the few hours spent in hospital, and the same number felt fit and active the following day. Half had no problem whatever with their (aphakic) sight a week after operation, by which time two-thirds had resumed their 'normal' preoperative activities. It is not claimed that recovery and rehabilitation was quicker after day-case cataract surgery than after conventional hospital care, but we do believe that day-case management facilitates rather than impedes recovery and rehabilitation. Clearly the majority of patients would not, in retrospect, have preferred inpatient care.

77% of the patients said they would have been able to return to hospital for examination on the day after operation. While theoretically this may be advantageous, there is no evidence that absence of the more extensive examination of the eye enabled by a hospital visit has been detrimental to sight. It is much more important, in our view, to concentrate attention at this stage on the patient as a whole. Many are aged, and the ultimate aim of surgery is to enable them to get back to a normal way of life, commensurate with their age, as soon as possible.

Domestic situations and problems vary greatly. While 20% of the patients lived with relatives, 60% had the varying problems of living with a spouse, and 20% lived alone, dependent on occasional visits from friends, neighbours, etc. Postoperative care and rehabilitation require individual attention if the quality of life is to be maximally improved. We believe this is best achieved by careful planning before operation by a member of the nursing staff

who is familiar with both the care of eyes after cataract surgery and the problems of domestic life for people in this age group.

A home visit by a nurse with similar experience is essential after day-case surgery. The objects of this home visit are: (1) to exclude ocular complications that required immediate attention; (2) to demonstrate the best way to instil eye drops; (3) to reassure the patient and relatives that all is well.

Complications that require immediate treatment are rare, and in practice reassurance is the most important factor. An understanding of the anxieties that patients face has enabled us to meet them with confidence and allay the fears of patients and their relatives or neighbours with practical advice. Patients operated on subsequent to this series have been questioned about the value of the home visit. All felt that this was necessary but that one visit was sufficient.

The average age of patients having cataract extractions is rising according to Goldacre and Ingram.³ Ophthalmologists cannot ignore the medical and social consequences of planned surgery in the elderly, particularly those problems which are specifically created by hospitalisation and removal of the aged from their own environment. Geriatricians⁴ realise that much of the benefit of hospital treatment is lost when these people are discharged home. Possibly those who now have cataract surgery as inpatients would also benefit from a home visit. We are convinced that, in terms of finance and the quality of life, one home visit is cheap at the price, particularly if it follows surgery without hospitalisation.

The need for cataract surgery is there for all to see, and it is rising.³ The increase seems to be partly due to more people having surgery and partly because more of them are now having both eyes operated upon. The

number of elderly in the population is also rising and will continue to rise during the next decade, so that in future more will require cataract surgery. The social consequences of failure to alleviate blindness from cataract cannot be ignored, and it could be argued that the prompt availability of cataract surgery is as important as advances in operative technique.

It is unlikely that the increased demand for cataract surgery will be met by a matching increase in facilities. There will have to be some reappraisal of the way we use the resources that we have, because the cost in terms of finance, staff, and beds of doing a single cataract extraction without hospitalisation is less than retaining the patient in hospital. There can be no doubt that a given number of personnel could manage a larger number of cataract operations if these are performed as day-cases than if the patients are hospitalised.

There is scope for continuing the progressive decrease in the period of hospitalisation.³ We have done day-case cataract surgery for over 5 years (more than 700 operations), and it is now difficult for us to understand what benefit there is from hospitalisation after cataract extraction for the vast majority of patients who would not, apparently, have preferred inpatient care if it had been offered.

References

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