LETTER TO THE EDITOR

Simcoe cannula construction can endanger surgical outcome

Brian Savage
Haydom Lutheran Hospital, PO. Mbulu, Tanzania.

Recently I noticed with surprise, during extracapsular cataract surgery, that cortex was retreating from the anterior port of my simcoe cannula during aspiration, instead of being drawn towards it.

On closely examining the cannula, I discovered that the infusion entering the luer connection was plumbed to exit at the anterior port, while the syringe was vigorously aspirating anything near the large side port; iris, anterior capsule, even posterior capsule; certainly not what I was expecting!

I discussed this by email with the supplier, who apologised: “I packed Reverse Simcoe in error!” and offered a replacement.

I find that the ‘Reverse’ Simcoe is a frequent visitor to extracapsular cataract sets. The surgeon, keen to get in among the cortex, often does not notice he is using one until the outcome of his operation has been affected because the wrong structure has been sucked into the cannula.

It is important for the surgeon to recognise the reverse simcoe. This can be done as follows:

1. Preoperatively, examine each simcoe cannula before use. Check that the luer port which receives the solution giving set, allows outflow via the larger side-port, and the smaller anterior port is connected to the narrow pipe which accepts the PVC tubing and aspiration syringe (Figure 1) and not the other way round (Figure 2).

2. At operation, before entering the eye, run the drip, and observe the outflow of the irrigating solution: If it arcs down and forwards, this is likely to be a normal simcoe (Figure 3). If however the outflow goes straight up before curving down (Figure 4), then you are about to use a reverse simcoe!

3. When operating, observe which port appears to be sucking in the cortex. This should be the smaller anterior port, while the anterior chamber is maintained by the flow from the larger side port.

4. Inadvertent aspiration through the larger side port of a reverse simcoe, while irrigating through the smaller anterior port, can cause unexpected shallowing of the anterior chamber.

Cost-effectiveness analysis of cataract services in Lagos University Teaching Hospital (LUTH), Lagos, Nigeria

Olufisayo Temitayo Aribaba
Lagos University Teaching Hospital, Guinness Eye Centre, p.m.b. 12003, Lagos, Nigeria.

Email: fisayo2aribaba@yahoo.co.uk

Aim: To examine the cost-effectiveness of Lagos University Teaching Hospital’s cataract services.

Methods: A retrospective study of all consecutive cataract patients aged 18 years and above who had cataract surgery with Intraocular Lens (IOL) implants between July 2000 and June 2004. Health gains and costs incurred at the base hospital and the Pakoto PHC outreach were estimated. Those lost to follow-up before six weeks post-operatively were excluded.

The cost-effectiveness analysis used effectiveness measures based on patients’ utility values given their visual acuity in the best-seeing eye and in the operated eye. The utility values had been obtained by Brown and Brown (1999, 2000, 2002, 2003) using a Time Trade-Off questionnaire.

Results: Cataract surgery with IOL implants accounted for 40.4 per cent of all eye surgeries. A total of 264 eyes (81.7 per cent) had uniocular surgery while 42 eyes (13.0 per cent) had combined trabeculectomy for cataract and glaucoma. Analysis was based on the best seeing eye and operated eye per patient; effects were evaluated based on the difference in visual acuity gained post-surgically and their corresponding utility values. Streams of costs grouped from eight cost centres were used in assessing the cost-effectiveness and incremental
Evaluation of vitamin A deficiency programme in Lagos State

Olufunmiayo Bankole
PO Box 36088, Agodi, Ibadan, Nigeria.
Email: dishola@oauife.edu.ng

Aim and methods: An evaluation of the vitamin A deficiency prevention programme in two local government areas of Lagos State was conducted within the period 7/7/2004 and 23/7/2004. The aim was to determine the prevalence of xerophthalmia in children aged 24 to 71 months and assess the equity of the vitamin A programme using supplement distribution coverage, access and utility of existing facilities for vitamin A supplements distribution, the distribution, availability and affordability of fortified foods.

Results: A total of 2,922 children were studied, 1,428 (48.87 per cent) females and 1,494 (51.13 per cent) males. The prevalence of total xerophthalmia was 0.34 per cent (95 per cent Cl 0.16; 0.63 per cent). Vitamin A supplement coverage of study population was 99.1 per cent (95 per cent Cl 98.7; 99.4 per cent). 15.0 per cent (95 per cent Cl 13.6; 16.2 per cent) of recipients of supplements had the correct number of capsules expected for their age. All 0.9 per cent (95 per cent Cl 0.6; 1.3) children who had not received supplements were from Mushin Local Government Area (LGA). There was under-utilisation of routine services by target population 16.2 per cent (14.9; 17.6 per cent) despite easy physical access reported by up to 93.8 per cent.

Conclusion: Vitamin A deficiency is still a problem of mild public health significance.

Correlation between visual outcome and cost calculation of ECCE/MSICS/PHACO in a tertiary hospital setting, Orissa, India

Navratan Dhanuka
Email: dhanuka42@hotmail.com

Aim and methods: The study is designed to look into visual outcomes from the different surgical techniques: Extracapsular Cataract Extraction with Intraocular Lens (ECCE IOL), Phacoemulsification with Intraocular Lens (PHACO IOL) and Manual Small Incision Cataract Surgery with Intraocular Lens (MSICS IOL) and the provider costs related to them. The study had a retrospective and a prospective design. The retrospective part looked at visual outcomes of 1505 patients operated by three different techniques – ECCE, PHACO and MSICS. The prospective study looked into visual outcome and the cost of 150 patients selected randomly for one of the three different types of surgery.

Results: MSICS IOL gave best visual outcome. PHACO IOL results were good but not as good as MSICS IOL. ECCE IOL gave poorest results comparatively.

The cost of MSICS IOL was Rs 713.94 (£8.50), ECCE IOL cost was Rs 713.94 (£9.00) PHACO IOL cost Rs 954.11 (£11.40). Hence MSICS IOL costs were almost similar to ECCE IOL but PHACO IOL costs were higher. The fixed cost was Rs 553.32 (£7.00). The variability of cost was mainly in the cost of the phaco machine, its accessories and personnel costs. Personnel costs varied mainly due to the duration of a particular procedure.

Conclusion: MSICS is the solution for the developing world’s ever increasing cataract problem. It is cheaper, gives good visual outcome and can be done in less time which suggests that it is ideal for the developing world cataract scenario.
between June and July 2004, to determine the prevalence of cataract blindness and coverage of cataract surgical services. Using systematic, two-stage cluster random sampling, 35 clusters were selected out of 24 villages with selection based on the probability proportional to the size (PPS) of each village. 50 people were then examined from each cluster.

**Results:** 1,573 people, out of 1,703 registered, were examined. The prevalence of cataract blindness was 4.5 per cent (95 per cent CI, 3.4-5.5). The prevalence of cataract blindness was higher in females (5.7 per cent) than males (3.4 per cent). Cataract surgical coverage for people was 11.7 per cent while coverage for coughing was 21.7 per cent. Cost (39 per cent) and lack of awareness of cataract or its treatment (18 per cent) were identified as the main barriers to cataract surgery uptake.

**Conclusions:** The prevalence of blindness due mainly to cataract is unacceptable high in this rural community. The reasons are directly related to poverty, ignorance and lack of good quality cataract surgical service delivery. Establishment of good quality, high-volume and low-cost cataract service is highly desirable.

---

**Evaluation of visual outcome of cataract surgical services in St. Mary's Catholic Hospital, Gwagwalada, Abuja, Nigeria**

**Aim:** To evaluate visual outcome of cataract surgical services, surgical complication rate, pre-existing disease and trend in cataract surgery, and to make recommendations.

**Methods:** A retrospective study was done to determine the visual acuity of all cataract surgeries of ages greater than 17 years from 2001-2003. A standard case of all elective cataract patients who underwent surgery was extracted from patient folders in the record department and evaluated for visual outcome of cataract surgical services.

**Results:** The visual outcome was 59.6 per cent with visual acuity better than 6/18 with best correction in a study population of 1,002 patients. The sight restoration rate was 86.12 per cent. A total of 91.9 per cent operations performed were extracapsular cataract extraction with posterior chamber intraocular lens (ECCE + PC IOL). Patients with pre-existing disease accounted for 15.4 per cent and those with surgical complications were 10.4 per cent of all cases. The main causes for poor outcome were poor selection of cases and surgical complications.

**Conclusions:** Good outcome of cataract surgery is achievable in St. Mary’s Hospital and can be further enhanced with good patient selection and consistent availability of biometry for pre-surgical assessment. The preferred type of surgery for all cataract cases remains ECCE + PC IOL.

---

**Outcome of bilateral paediatric cataract surgery in a tertiary eye hospital in India**

Rohit Chandramohan Khanha  
Email: rohitkhanna22@hotmail.com

**Aim:** To look at the outcome of bilateral paediatric cataract surgery in a tertiary eye hospital in India.

**Methods:** The records of all children under 16 years, who had undergone bilateral cataract extraction between Jan 2001-Dec 2003, with a minimum follow-up of three months, were reviewed.

**Results:** 215/257 (83.7 per cent) patients were eligible. The mean age at presentation was 53 months (range: 0-168 months). Congenital cataract was present in 107 patients (58.2 per cent) and developmental cataract in 77 patients (41.8 per cent). Aetiology was established in 49 patients (22.8 per cent), with the commonest being genetic (14.9 per cent). Pre-operatively, 102 patients (47.4 per cent) had visual acuity less than 6/60 in the better eye. Post-operatively, 37 patients (17.2 per cent) were less than 6/60 of which 19 patients (8.9 per cent) were less than 3/60, in the better eye. 85 patients (39.5 per cent) had visual acuity equal to or better than 6/18. The mean age at surgery was 55.2 months (range; 1-168 months). 269/430 eyes (62.6 per cent) had IOL implanted. The mean duration of follow-up was 13.1 months (range; 3-38 months). The most common early post-operative complication was fibrinous uveitis seen in 57 eyes (13.3 per cent) and the most common delayed post-operative complication was Posterior Capsular Opacification (PCO) seen in 118 eyes (27.4 per cent). The most important prognostic factor for poor outcome was congenital cataract (OR: 26.3; 95 per cent CI 4.4-158.5), especially, in those operated after one year of age. The other independent risk factor for poor prognosis was total cataract (OR: 4.8; 95 per cent CI 1.3-17).

**Conclusion:** Delay in treatment of congenital cataract is associated with poor prognosis. Hence a strategy for early detection and treatment is crucial.

---

**Vitamin A situation and ocular disorders in children’s homes in Nairobi, Kenya**

Kahaki Kimani  
PO Box 19676, Nairobi, Kenya.  
Email: kahakikimani@yahoo.co.uk

**Aim:** To determine the vitamin situation and ocular disorders in children’s homes in Nairobi.

**Methods:** A cross-sectional survey was carried out among children living in seven children’s homes in Nairobi. Ocular examination, anthropometric measurement and serum retinol analysis were carried out.

**Results:** 403 children aged below 16 years were examined. There were no cases of clinical xerophthalmia. However, serum retinol level was assessed in a representative sample of 36 children, and 47.2 per cent of them had serum retinol below 0.70 micromol/L indicating a subclinical vitamin A deficiency. Serum retinol level was strongly associated with duration in the home P<0.0001 but not with the nutritional status score. Only 5.2% of the children were known to have received vitamin A supplementation. 8.7 per cent of the children had ocular disorders with allergy and suspected refractive error being the commonest. 3.0 per cent of the children were undernourished.

**Conclusions:** Vitamin A deficiency exists in children’s homes in Nairobi with VAD being significantly associated with duration in the home and age of the child. The main ocular disorders are suspected refractive error and allergy.

---

**Analysis of cataract needs in two provinces of Vietnam**

Mansur Syumarti  
Taman Cibaduyut Indah CE26, Bandung, West Java 40239, Indonesia.

**Aims:** To analyse data from RACSS study which had been conducted in two provinces (Gialai and Haiphong) Vietnam.

**Methods:** Data collected in 2000-2001 from surveys had been entered to the package for RACSS. Using the EPI-INFO 6.04D and RACSS DOS programmes, the data was analysed with each level of visual acuity (3/60, 6/60 and 6/18).

**Results:** Cataract is the major cause of bilateral blindness (82 per cent in Gialai, 69 per cent in Haiphong). The age and gender adjusted prevalence of bilateral cataract blindness (VA<3/60) in people of 50 years and older was 2.9 per cent (95 per cent CI: 2.1-3.7) in Gialai and 1.2 per cent (95 per cent CI: 0.6-1.8) in Haiphong, with Cataract...
Aim: To review all available evidence on the causes and prevalence of blindness and visual impairment in the Commonwealth Caribbean and Haiti, and the results extrapolated to the rest of the region focusing on VISION 2020 priority conditions.

Methods: Published literature from 1965 to 2004 were searched in Pub-Med, Med-Line, CAREC, Cochrane, LILACS, and MedCarib. Search terms: blindness, visual impairment, Caribbean Islands, West Indies, prevalence, the individual countries and combinations of these specific terms. CCB, OSWI, Caribbean Health Research Council, Government ministries and relevant personnel were approached for unpublished data/report for the region.

Results: The Barbados Eye Study (BES) was the largest and only population-based study to investigate blindness and visual impairment in black adults (~40 years), in the region. The results from BES were extrapolated to the rest of the region, using the confidence interval to obtain a range that contains the true estimate with 95 per cent certainty. Childhood blindness (CB) estimates were modelled on both the crude estimates deduced from the only published article on CB and the algorithm based on under five year old mortality rates. The second set of estimates gave an overall number of blind children for the Commonwealth Caribbean (CC) of 588, more than twice that of the first, 216. The available data on cataract surgical services in the CC showed a huge disparity in the CSR: 390 in St Lucia and 3,786 in Montserrat. There was a substantial inequality in the number of eye-care professionals, with six countries without a single ophthalmologist.

Conclusions: The region needs population-based surveys to assess the services in place for the VISION 2020 priority conditions, and more investment in human resources. A standardised method of data collection is required with a centralised database.

Systematic review: modelling the prevalence of blindness and visual impairment in the Caribbean

Abiodun Ogunsola
27 Rudbeck House, Radnor Road, London SE15 6UT.