Eye camp cataract expedition: A review of early post-operative visual outcome

Emem G Abraham1 Emmanuel O. Megbelayin2
1,2Department of Ophthalmology, University of Uyo Teaching Hospital, Uyo, Nigeria

Abstract: Less than four years to the end of Vision 2020: The Right to Sight; a program targeted at reducing preventable causes of blindness all over the world, have steps so far taken in the developing world positively affected this expected outcome? The objective was to assess the immediate post-op visual outcome in an outreach cataract surgery program. A retrospective study of the immediate post-op visual outcome of patient operated using Manual Small Incision cataract surgery in an eye camp during free eye care program. Of the 585 patients, 293 were men and 292 were women in a ratio of 1:1. The age range was 16-89 while the mean was 59.13±13.36. The presenting VA was hand movement (HM) or worse in 384 (65.6%) and CF- 6/60 in 201 (34.4%). Visual acuity on first day post-op was good outcome in 76 (13%), borderline in 270 (47.6%) and poor in 234 (39.5%) This study has shown that cataract surgery camps still contribute a lot to the reduction of preventable blindness in the developing world.

Key words: Blindness, Immediate, post-op, preventable, visual acuity

I. Introduction

As we get closer to the year 2020 when everyone is expected to have the right to sight, the daunting task of reducing the burden of preventable blindness in our community becomes compelling. It is in the light of this that an eye outreach was carried out through the collaborative efforts of the government health ministry and a telecommunication company. Cataract remains the commonest cause of preventable blindness in the world and accounts for 47.8% of global blindness.1 According to the Nigerian blindness and visual impairment survey of 2007, cataract accounted for 43.0% of blindness, 45.3% of severe visual impairment in the country. From this survey, it was shown that south-south geopolitical zone where Akwa Ibom state belongs had the least cataract surgical coverage (21.6) as against 46.1 in the South West and 42.4 in the South East2. Cataract surgical coverage (CSC) is an indicator of the extent to which the need for cataract surgery is being met at the population level. While CSC for eyes reflects the volume of cataract surgery, CSC for people measures the success of VISION 2020 initiative to eliminate cataract blindness. Cataract surgery is the only method of restoring vision for those with blindness/vision impairment due to cataract and it is the second most cost effective public health intervention following immunization to prevent communicable diseases.3 This is because successful cataract surgery improves the quality of life of the affected persons. Outcome can be measured simply as the visual acuity in the operated eye or in the patient; and also in terms of ability to function, quality of life and economic rehabilitation.4,5,6,7

Surgical audit is therefore an important quality control method. Visual outcome following cataract surgery is important for the patient and the eye care provider because good surgical outcomes will help promote cataract surgery for the people as well as improve the quality of life of the patients. Poor surgical outcomes will affect the demand for cataract surgery by the community and have a negative impact on people’s perception of cataract surgery.8 In assessing the vision restoration benefits achieved through cataract surgery, the measurement of visual acuity (VA) with the presenting vision represents the actual circumstances under which people function in day-to-day activities.9 VA is the most common clinical measure of the quality of cataract surgery. It is how we describe and measure the success of surgery.

II. Aim

The aim of this study was to assess the immediate visual outcome in an outreach cataract surgery program

III. Method

Akwa-Ibom state which is located in south–south geo-political area was created from Cross river state in 1987. It is located in the coastal South-Southern part of the country, lying between latitudes 4°321 and 5°331 North, and longitudes 7°251 and 8°251 East. The State is bordered on the east by Cross River State, on the west by Rivers State and Abia State, and on the South by the Atlantic Ocean and the southernmost tip of Cross River State. Ibibios, Annangs and Oros are the predominant tribes.10 Uyo the capital city where the outreach was carried out is centrally located and accessible from all parts of the state.
The study was carried out in January 2016 during a state wide free eye care program sponsored by the state government in collaboration with a telecommunication company. Over 15,000 registered for the program but only 9,000 could be screened. Manual small incision cataract surgery (MSICS) was carried out on most of the patients except for only two patients that was converted to extracapsular cataract extraction (ECCE). Surgery was done by ten different surgeons with different levels of competence. Study included teenagers and adults with complete data who had cataract surgery during the three week program. Those with incomplete data, pterygium surgery, 2 patients converted to conventional ECCE and combined pterygium and surgery-cataract surgery were excluded.

Data including age, sex, presenting visual acuity and first day post operative visual acuity were taken. Pre and post operative visual status of each patient was classified using the World Health Organisation (WHO) category of Visual Impairment and Blindness. Levels of visual acuity after cataract surgery were categorized using the WHO recommended guidelines. Visual acuity was done using Snellen’s and illiterate E chart. Data collected was analysed using SPSS version 20.0

IV. Result

A total of 585 patients had complete data of whom 293 were men and 292 were women at a ratio of 1:1. The mean age was 59.13±13.6. Most of the patients were 50 years and above. Figures 1 and 2 show age and sex distribution. The presenting VA was hand movement (HM) or worse in 384 (65.6%) and CF 6/60 in 201(34.4%). As depicted in table 1, Visual acuity on first day post-op was good outcome in 76(13%), borderline 276(47.6%) and poor in 234(39.5%)
It is generally assumed that most of those who shun follow up are those patients whose vision have improved significantly so they ignorantly do not bother about follow up.

VI. Conclusion

This study has shown that cataract surgery camps still contribute a lot to the reduction of preventable blindness in the developing world but steps need be taken to improve the outcome of the surgery and also post op follow up.

Limitations of this study included lack of equipment for better pre-op assessment e.g. biometry and inability to track down patients for follow up.

VII. Tables And Figures

**Figure 1:** Age distribution in studied population

**Figure 2:** Showing the sex distribution in 585 patients
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Table 1: First day post operative VA

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Visual acuity (VA)</th>
<th>n(%)</th>
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<tbody>
<tr>
<td>Good outcome</td>
<td>≥6/18</td>
<td>76(13%)</td>
</tr>
<tr>
<td>Borderline outcome</td>
<td>6/24-6/60</td>
<td>278(47.5%)</td>
</tr>
<tr>
<td>Poor outcome</td>
<td>&lt;6/60</td>
<td>231(39.5%)</td>
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</tbody>
</table>

References

[14]. Akwa ibom: http://www.akwaibomstate.gov.ng
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