

Evisceration in Federal Medical Centre, Birnin Kebbi, Nigeria

ABSTRACT

Background: To determine pattern of evisceration at Federal Medical Centre, Birnin Kebbi, Nigeria.

Materials and Methods: A retrospective review of case files of all patients who underwent evisceration in the Eye Unit of Federal Medical Center, Birnin Kebbi, Nigeria from January 2004 - December 2011. The following information was extracted: biodata, indication for evisceration, eye affected and complication of the surgery.

Results: There were 22 males and 8 females with M:F ratio 2.8:1. The mean age of the study population was 36.87years (SD 21.2), with age range of 5-80 years. The commonest indication for evisceration was intraocular infection 14 (46.7%), followed by ocular trauma 11 (36.7%). Evisceration was common among the middle age group (41-50 years). Ocular trauma accounted for the highest number 11 (36.7%) of all indications for evisceration in age group less than 20 years. Ocular trauma in both children and artisans occurred only in male patients.

Conclusion: Intraocular infection and ocular trauma were the main indications for evisceration at Federal Medical Centre, Birnin Kebbi. Ocular trauma accounted for the highest number of all indications for evisceration in age group less than 20 years. The need to prevent ocular trauma among children in order to reduce the magnitude of evisceration is underscored.

Keywords: Evisceration, Birnin Kebbi, Ocular trauma, eye infections

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Introduction

Evisceration is a procedure in which the intraocular contents are removed while the sclera, tenon's capsule, conjunctiva, and optic nerve are preserved.(1) Evisceration is one of the commonest ocular destructive surgeries performed worldwide. Von Graefe first advocated the use of evisceration in the presence of severe endophthalmitis as a means of preventing intracranial spread of infection. (2) Over the year's indication for evisceration has expanded to include both infectious and non-infectious intraocular inflammation resulting in total loss of vision with no potential for any useful vision.(3)

The demographics and indications for evisceration in Africa are likely to differ significantly from those in developed countries due to difficulties in prompt access to ocular medical treatment. Evisceration has psychological, economical and social impact on both patients and their relatives. Patients commonly experience symptoms of depression after enucleation or evisceration.(4)

The practitioners need to be prepared for these symptoms and should treat or refer patients to the appropriate specialist.

Federal Medical Centre Birnin Kebbi is the largest single provider of ophthalmic care in Kebbi State. The population of Kebbi state in 2006 was estimated at 3,137,989.(5)

Knowledge of the pattern of evisceration in the eye unit of Federal Medical Centre will go a long way in improving eye care delivery in Kebbi State, Nigeria.

Materials and Method

This was a retrospective study over an 8 year period (1st January 2004 to 30th December 2011). It involved all consecutive patients who had evisceration at the Eye Unit of Federal Medical Centre Birnin Kebbi. The chart review was performed of patients who had evisceration using eye clinic emergency register, ward admissions register and theater operations register of the Eye Unit. The following information was extracted: biodata, indication for evisceration, eye affected, treatment offered before presenting at the hospital and complications following evisceration. Excluded are the patients who previously had eviscerations from the referral hospital. The data was entered and analyzed by SPSS 16.0 statistical software package.

The Ethical Approval to carry out this study was obtained from Research Ethical Committee of Federal Medical Centre, Birnin Kebbi, Nigeria.

Results

A total of 30 patients had evisceration within the study period. There were 22 males and 8 females with M: F ratio 2.8:1. The mean age of the study population was 36.87 years (SD 21.2), with range of 5-80 years (Table 1). The left eye was eviscerated in 20 out of 30 eyes.

The commonest indication for evisceration was intraocular infection 14 (46.7%), followed by trauma 11 (36.7%). Evisceration was common among the middle age group (41-50 years). Ocular trauma accounted for the highest number of indications for evisceration in age group less than 20 years (Table 2). All the 4 children less than 4 years old in our study had their eyes eviscerated due to severe irreparable penetrating eye injuries.

Ocular trauma was the indication for evisceration in all the artisans. Ocular trauma in both children and artisans occurred only in males. Intraocular infection was the commonest indication for evisceration among farmers (57.1%), followed by housewives (28.6%) (Figure1).

Postoperatively, one patient developed severe scleritis and extrusion of ocular implants. As many as 46.7% of the patients used traditional eye medication (TEM) and 40% used eye drops purchased from the counter before presenting at the hospital for evisceration. One patient had evisceration on account of panophthalmitis developed after ocular surgery (following ocular trauma) that was done at the referral hospital. Only 10% of the study patients accepted an artificial eye after evisceration.

Discussion

Intraocular infection and trauma accounts for 83.3% of indications for evisceration in our study. This was in agreement with other reports from developing countries. (6, 7) In a northern Indian study, 78.6% of all eviscerated eyes were reported to be due to panophthalmitis while in another 21.3% were due to irreparable globe injury.(2) The percentage of infection responsible for evisceration in our

study is higher than what was reported by Nwosu from Onitsha, Nigeria.(8) This may probably be due to a high number of patients with infective ocular condition attending our hospital. The high incidence of infective causes in our study probably reflects the low socioeconomic condition of the people and poor access to eye care in the community. The bad effect of traditional eye medication (TEM) on the cornea is well documented worldwide.(8, 9) Our study reported 46.7% of the patients used TEM and 40% used eye drops purchased from the counter before presenting at hospital for evisceration. This was slightly different from a previous study from Onitsha(8) where 37.5% of their patients had used traditional eye medications (TEM) while another 53.5% had used eye drops (purchased over the counter). In a rural Indian study investigating the role of TEM in the management of corneal ulcers, the authors reported that 47.7% of the studied patients had applied TEM prior to presenting at the eye centre.(9) Intraocular infection was the commonest indication for evisceration among farmers (57.1%) in our study. This could probably be due to socioeconomic status and TEM uses in these group. Severe irreparable penetrating eye injuries were responsible for evisceration in all the children less than 4 years. This was quite disturbing and could be due to poor supervision of children playing at home and school. This situation needs further study. The entire trauma in both children (0-15years) and artisans occurred in male patients, highlighting the aggressive and adventurous nature of the male gender.

Limitation of the study

The limitation of this study was the fact that it was a retrospective study, however the study would be useful in improving eye health care services thereby reducing avoidable eye loss to evisceration and its consequences.

Conclusion

Intraocular infection and trauma were the main indications for evisceration in our study. Evisceration was common among the middle age group and Trauma accounts for highest number of indication for evisceration among children. Therefore there is need for preventive measures in terms of adult supervision of children at play and public enlightenment on ocular effect of trauma.

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References

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Age (years)	Gender		Total
	Male (%)	Female (%)	
0-10	5 (16.7)	1 (3.3)	6 (20.0)
11-20	1 (3.3)	2 (6.7)	3 (10.0)
21-30	3 (10.0)	0 (0.0)	3 (10.0)
31-40	3 (10.0)	1 (3.3)	4 (13.3)
41-50	4 (13.3)	3 (10.0)	7 (23.3)
51-60	3 (10.0)	0 (0.0)	3 (10.0)
61-70	2 (6.7)	1 (3.3)	3 (10.0)
71-80	1 (3.3)	0 (0.0)	1 (3.3)
Total	22 (73.3)	8 (26.7)	30 (100.0)

Table 1: Age and Sex distribution

Age (years)	Indications for Evisceration				Total
	Trauma	Intraocular infection	Painful blind eye	Staphyloma	
0-10	5	0	0	1	6
11-20	2	0	0	1	3
21-30	1	2	0	0	3
31-40	1	0	2	1	4
41-50	0	7	0	0	7
51-60	2	1	0	0	3
61-70	0	3	0	0	3
71-80	0	1	0	0	1
Total	11	14	2	3	30

Table 2: Indications for evisceration by age

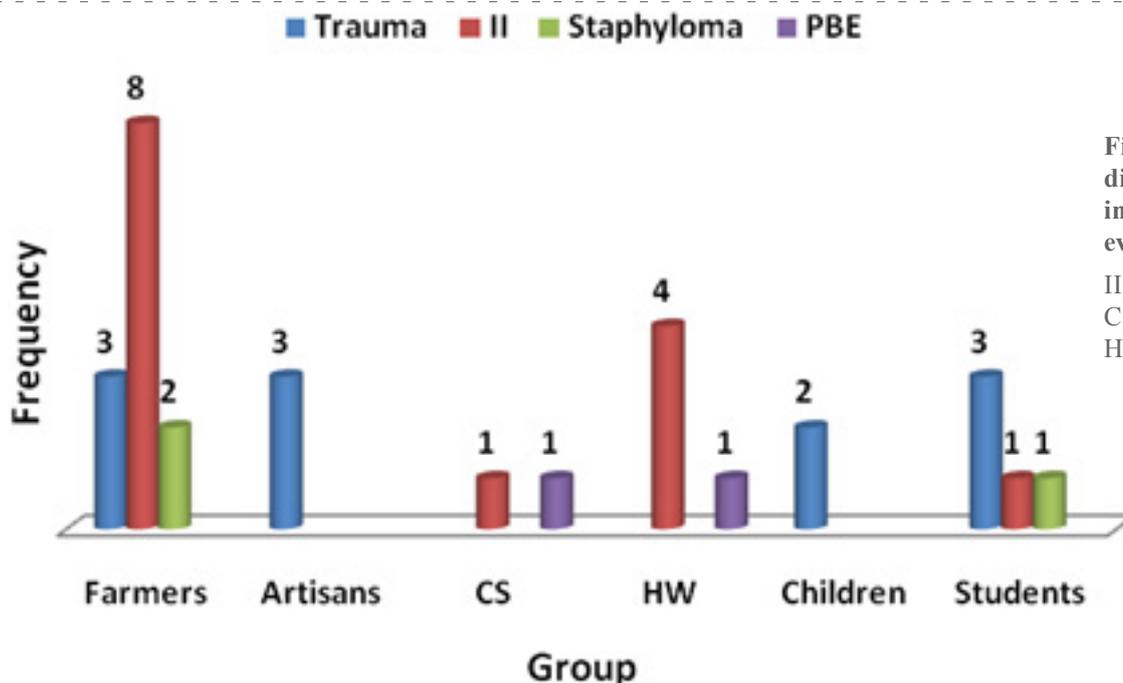


Figure 1: Group distribution of indications for evisceration

II, intraocular infection; CS, civil servant; HW, housewives

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