

The clinical and epidemiological profile of surgical cases attending minor OT in a tertiary care ophthalmology center

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Abstract

Ocular morbidity usually are caused by both visual and non visual pathology. According to WHO as on 2020 , 235 million people are visually impaired , of which 43.3 million are blind, major cause are uncorrected refractive error and cataract. However not much details are available regarding non visual ocular morbidity , as primary focus is always on visual Impairment and blindness. But it is a unavoidable fact that many patients are suffering from non visual morbidity and some needs surgical intervention as well.

Keywords : Minor operative procedures, Ophthalmology, oculoplastic and adnexal surgery.

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Introduction

Ocular morbidity usually are caused by both visual and non visual pathology. According to WHO as on 2020 , 235 million people are visually impaired , of which 43.3 million are blind, major cause are uncorrected refractive error and cataract. However not much details are available regarding non visual ocular morbidity , as primary focus is always on visual impairment and blindness. But it is a unavoidable fact that many patients are suffering from non visual morbidity and some needs surgical intervention as well. As these pathologies affect quality of life and sometimes even lead to blindness , these pathologies need to be considered for policy making and planning of ophthalmology infrastructure.

Aim of the study: Aim of the current study is to evaluate epidemiological and clinical profile of minor Operation cases attending at a tertiary care hospital.

Study design-- Hospital based cross sectional study

Material and methods

In this current study we are evaluating epidemiological and clinical profile of patients attending a tertiary care ophthalmology center. The study period is from 1st January 2018 to 31st December

2022. The minor operation procedures are defined as procedures that are superficial, limited operative field and minimum access intervention¹. After taking institutional ethical committee permission, records of patients undergoing various minor operation procedures are recorded in a prefixed proforma. The epidemiological and clinical profile, diagnosis, type of surgery, type of anesthesia etc are recorded. The patient records are evaluated and analyzed using Epi info Statistical software.

Results -

In this 5 year period, we have total 3047 patients, male 1537 (50.4%) and female 1480 (48.6%) with male female ratio. Age range is from 2 year to 79 year.

Table 1 showing Distribution of cases as per gender.

Gender	Number	Percentage
Male	1537	50.4
Female	1480	48.6

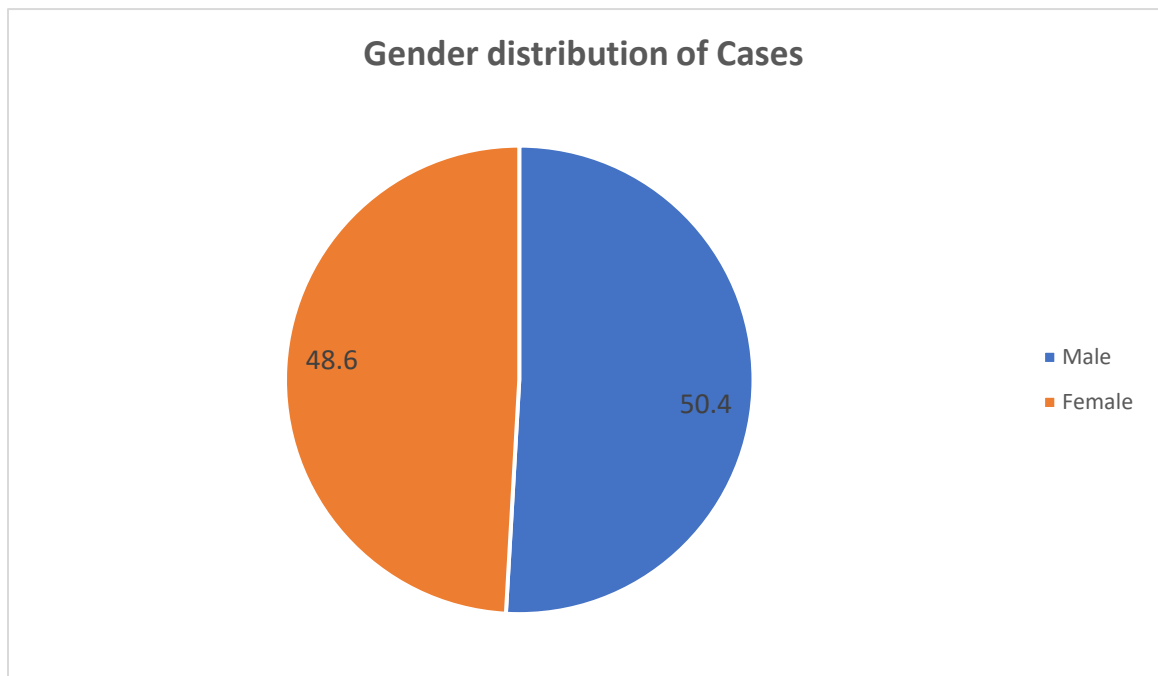


Fig 1 Showing Distribution of cases as per gender.

The most common anatomical site is eyelid/eyelash, number 1107(36.3%), followed by naso lacrimal system 987(32.4%), anterior segment 445(14.6%), conjunctiva 335(10.99%) and whole globe 173(5.7%).

Table 2 showing Anatomical site Number and percentage of cases

Anatomical site	Number	Percentage
Eyelid/lash	1107	36.3
Nasolacrimal system	987	32.4
conjunctiva	335	10.9
Anterior segment	445	14.6
Whole globe	173	5.7

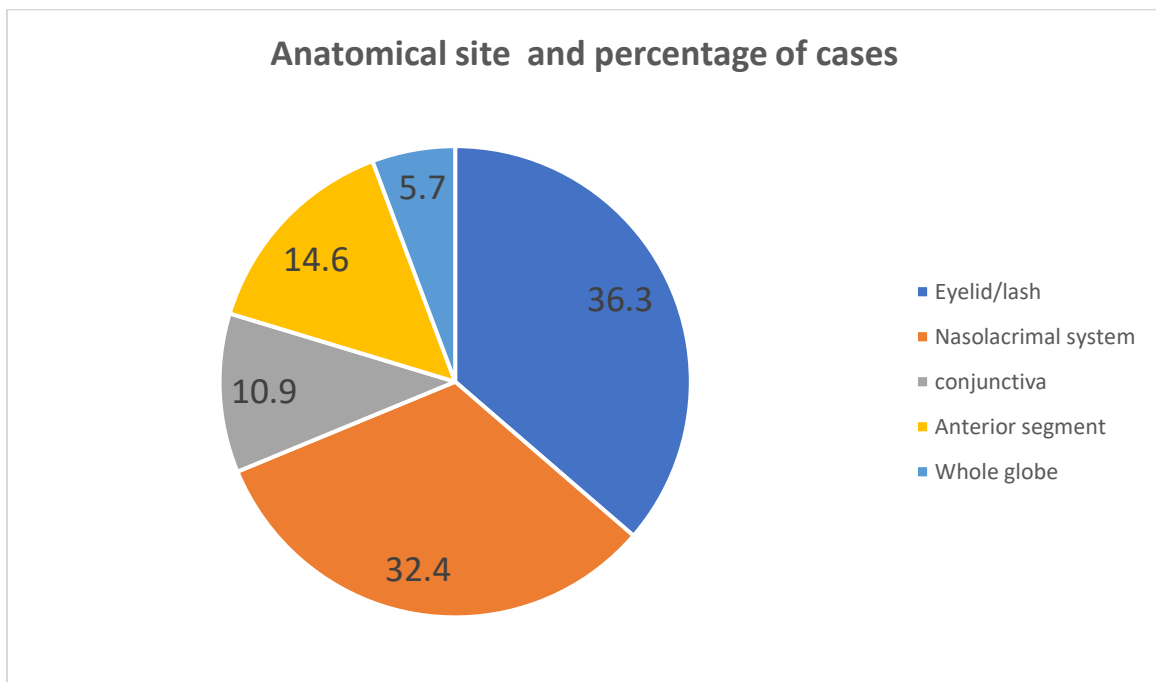


Fig 2 Showing Anatomical site and percentage of cases .

When we see year wise, year 2018 had 726 procedures, year 2019 had 743 cases, year 2020 had 246, year 2021 had 502 and year 2022 had 780 cases. Less number of cases in 2020 and 2021 can be attributed to Covid pandemic.

The most common procedure is DCT 449(18.2%) then DCR 438(14.37%), sclerocorneal tear 406(13.32%), pterygium 335(10.99%), chalazion 331(10.86%), lid repair 288(9.45%), excision biopsy 253(8.5%), tarsoraphy 152 (4.98%), evisceration 108(3.54%), entropion 96(3.15%), enucleation 65(2.13%), ectropion 20(0.66%).

Table 3: Showing type of surgery performed in terms of number of cases and percentage.

Type of surgery	Number	Percentage
DCT	438	18.2
DCR	549	14.4
CORNEAL TEAR	406	13.3
PTERYGIUM	335	10.9
CHALAZION	331	10.9
LID REPAIR	288	9.5
EXCISION BIOPSY	259	8.5
TARSORHAPHY	152	4.9
EVISGERATION	108	3.5
ENTROPION	96	3.2
ENUCLEATION	65	2.1
ECTROPION	20	0.7

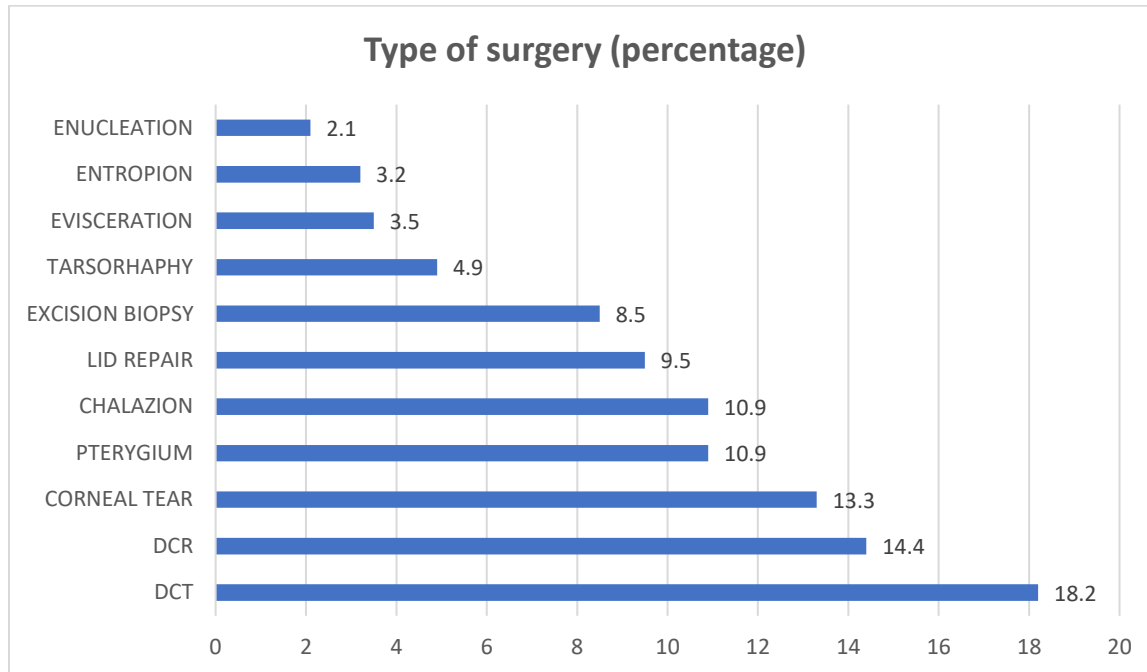


Fig 3: Showing type of surgery performed in terms percentage of cases.

Majority of cases were done under Local anaesthesia (73.64%) while pediatric cases are done under General Anaesthesia (26.35%)

Distribution of cases

Lid and lashes cases comprise of 36.3% total cases .Of this highest incidence is of chalazion 331(29.9%) ,lid repair 288 (26.01%) , excision biopsy 220(19.9%) , tarsorhaphy 152 (13.7%) , entropion 96(8.7%) , ectropion 20 (1.8%).

Conjunctival cases constitute 374(12.3%) of cases ,of which 335 (89.6%) cases are pterygium and rest 39(10.3%) cases excision biopsy.

Of cases involving naso lacrimal system which comprises 987 (32.4%) of total cases , majority 549(55.6%) cases are DCT and rest DCR 438(44.4%).

In cases involving globe ,comprising of 173 (5.7%) ,majority is evisceration 108(62.4%) and rest 65(37.6%) enucleation. Major cause of evisceration is trauma 88 cases(81.9%) rest corneal ulcer , bleeding staphyloma etc.Major cause of enucleation is painful blind eye 50 (76.9%) , rest other causes intra ocular trauma etc.

Sclero corneal tear repair is 406 (13.3%) of cases .Of this 299(73.6%) is adult case and rest 107 (26.3%) pediatric case.

Excision biopsy 259(8.5%) cases , of this 18 (6.9%) squamous cell CA , 15 (5.8%) basal cell CA , CIN 8

(3.1%) , dermoid 50(19.3%) , granuloma 25 (9.7%), squamous pappilloma 37 (14.3%) naevus 20(7.7%), lipdermoid 20 (7.7%)rest others rest 66(25.5%).

Discussion

Most of our cases ie 36.3% are based on that is ocular adnexa eyelid/eyelashes and naso lacrimal system 32.4% As minimal access needed in these surgeries and need of local anesthesia plus high occurrence of lid pathology as well as trauma makes them major contributor in case load of minor OT.This is similar to the study of O.P.ODUBO et al^{1,2,3}.

Prevelence of chalazion in our study is 10.9% which is comparable to study of Anthony et al⁴

Incidence of naso lacrimal pathology is 32.4% in our study. Dolgleish reported an incidence of lacrimal obstruction of 11% increasing with patient age to over 30% in a series of 3487 patients undergoing lacrimal irrigation prior to intra ocular surgery at one eye.⁵

In our study next common procedure is anterior segment involvement in the form of corneal / sclera corneal tear repair (13.3%)is found that20% of adult population having eye trauma during there life and eye trauma constitute of 17% of casualty visit⁶(epidemiological study of oculr trauma in an urban slum population in Delhi , India , Indian J of ophthalmology2008 July Aug; 56(4):313-316.)

Pterygium incidence in our study is 10.9, which is slightly lower than findings of Spaeth GL.et al⁶.

Excision biopsy is 8.5% in our study, the most common site being eyelid and conjunctiva. Most of cases are benign (58.7%) ,slightly higher than findings of Gautam P et al⁷.

Incidence of globe related surgeries was 5.7 % in our study, the cause of evisceration most commonly is trauma and that of enucleation is painful blind eye , which collaborates to study of Osama H et al⁸

Conclusion

There are a number of minor operative procedures done every year. When emphasis done upon visual impairment , these minor ailments causing distress to large number of people are often missed and under estimated .Hence not much importance is given in developing infrastructure of oculoplastic units in most of ophthalmological Departments. This current study shows the

importance of developing infrastructure and training of ophthalmologists so that a better care can be provided to these patients suffering silently from these minor ailments.

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