

# Pattern of Eyelid Disorders in a Tertiary Health Centre, South Western, Nigeria

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## Abstract

Eye lid lesions can have important esthetic complications, block vision and change the normal shape and function of the eyelid. **Purpose:** To evaluate the pattern of eye lid lesions in the oculoplastic clinic of this centre in order to estimate the hidden masquerading lesions that may require appropriate interventions. **Materials and Methods:** The clinic and theatre records of all patients that had eye lid disorders from January 2015-July 2017 were retrieved to obtain demographic characteristics, duration of symptoms, presenting visual acuity, eyelid lesions and histo-pathological diagnosis. Data obtained was analysed using Statistical Package for Social Sciences version 20. **Results:** A total of 124 patients with eye lid disorders were seen. This constituted 8.3% of all new cases seen in the oculoplastic clinic of the hospital. There were 64 (51.6%) males and 60 (48.4%) females with a male to female ratio of 1.1:1.0. A total of 63 (50.8%) of the patients with eye lid disorder had infective/inflammatory lesions while 22 (17.7%) of the patients had traumatic eye lid disorders. The proportion of eye lid disorders was significantly higher in males less than 40 years. Late presentation of eye lid disorders was higher in females. More than 3/5<sup>th</sup> of the patients 82(66.1%) had one form of surgical procedures. **Conclusion:** The incidence of eyelid disorders is relatively high with infective/inflammatory causes as the commonest presentation in young male patients. Early presentation and accurate clinical and histopathological diagnosis with appropriate interventions will prevent both esthetic complications and loss of life from misdiagnosed potential malignant eyelid disorders.

**Keywords:** Centre, Eyelid, Lesions, Pattern, Tertiary.

## 1. Introduction

Eyelid lesions are diverse and vary in clinical presentation and prognosis<sup>1</sup>. They may pose diagnostic challenge when different lesions present in similar fashion<sup>2</sup>. Periorcular epithelial skin lesions can have important esthetic complications, block vision and change the normal shape and function of the eyelid<sup>3</sup>. Eye lid lesions can be non-neoplastic or neoplastic, most of which are benign in nature<sup>1</sup>. The few malignant lesions have the potential to threaten the patient's life. Unfortunately, these malignant tumors can be presumed to be benign<sup>4</sup>. However, these can be treated effectively if detected early<sup>5</sup>. Therefore, all the clinically confusing and worrisome eyelid

lesions should be immediately biopsied to get an exact diagnosis at cellular level<sup>2</sup>. There are few population based studies on lid diseases especially in developing countries<sup>6</sup>. The study is to evaluate the pattern of eye lid lesions in the oculoplastic clinic of this centre in order to estimate the hidden masquerading lesions that may require appropriate interventions.

## 2. Materials and Methods

Clinic and theatre records of all patients who had eye lid disorders between January 2015 and July 2017 were retrieved. Demographic characteristics, main eye complaints, duration of symptoms, laterality, presenting

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visual acuity, eye lid lesions and histo-pathological diagnosis were obtained from the records. Visual acuity were categorized with  $\geq 6/18$  as normal,  $< 6/18$  to  $> 3/60$  as visual impairment and  $< 3/60$  as blindness. Infants were classified as either blind or believed not to be blind. Ethical approval was obtained from the institution's ethical review committee though data collection did not directly involve patient's participation. Data obtained were recorded and analyzed using Statistical Package for Social Sciences (SPSS) version 20. Means (Standard deviations) were used to describe the distributions of continuous variables. Categorical variables were described in Percentages. Comparisons of categorical data were performed with the use of Pearson's chi-square test.  $P < 0.05$  was considered statistically significant.

### 3. Results

There were one hundred and twenty four (124) patients with eye lid disorders seen during the study period. This constituted 8.3% of all new cases (1,493) seen in the oculoplastic clinic of the hospital. There were 64(51.6%) males and 60 (48.4%) females with a male to female ratio of 1.1:1.0. The age ranged from 0 year to 90 years with a mean age of  $27.8 \pm 21.2$  years. Unilateral cases were 107 (86.3%) with 52 left and 55 right while bilateral eye lid disorders were 17 (13.7%) making a total of 141 eyes. ( $\chi^2 = 21.597$ ,  $df = 1$ ,  $p = 0.003$ ).

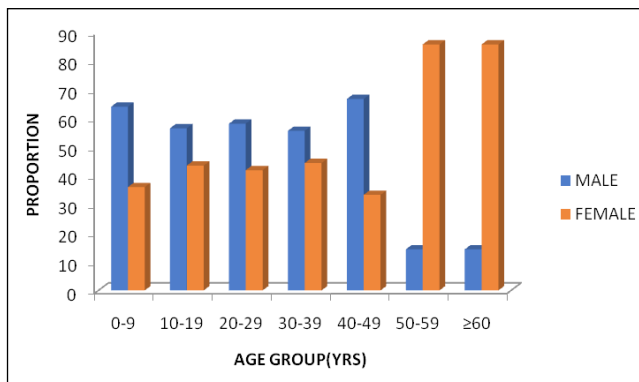


Figure 1. Age and sex distribution.

There were more males than females across all age groups except age 50 years and above. More than 4/5<sup>th</sup> of the patients with eye lid disorders 103 (83.1%) were found in patients below 50years. ( $\chi^2 = 9.119$ ,  $df = 1$ ,  $p = 0.003$ ) Figure 1.

Table 1. Gender Distribution of Eye Lid Disorders

Disorders	Male (%)	Female (%)	Total
Infective/ Inflammation	33( 52.4)	30 (47.6)	63 (50.8)
Trauma	13 (59.1)	9 (40.9)	22 (17.7)
Ptosis	10 (62.5)	6 (37.5)	16 (12.9)
Tumor	8 (53.3)	7 (46.7)	15 (12.1)
Trichiasis	0 (0)	5 (100.0)	5 (4.0)
Entropion	0 (0)	2 (100.0)	2 (1.6)
Ectropion	0 (0)	1 (100.0)	1 (0.8)

A total of 63 (50.8%) of the patients with eye lid disorder had infective/inflammatory lesions while 22 (17.7%) of the patients had traumatic eye lid disorders Table 1.



Image: Clinical image of an eye lid disorder

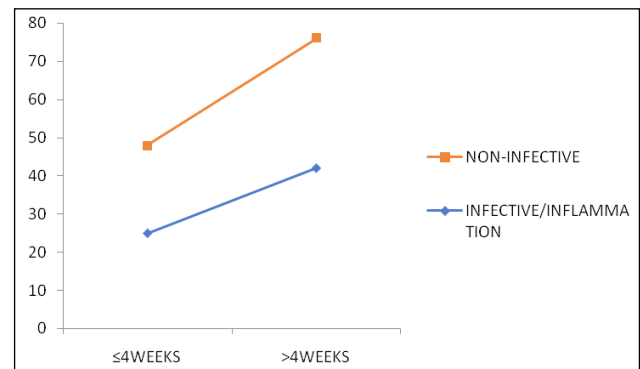


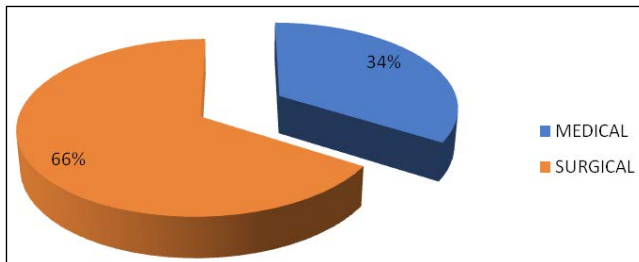
Figure 2. Duration of presentation of eye lid disorders.

The proportion of both infective and non infective eyelid disorders increases with duration before presentation Figure 2.

**Table 2.** Sex versus age, diagnosis and duration of presentation

Variables	Male (%)	Female (%)	Total P Value
≤40yrs	57(58.8)	40(41.2)	97 0.003
>40yrs	7(25.9)	20(74.1)	27
Infective/ Inflammation	33(49.3)	34(50.7)	67 0.569
Non-Infective	31(54.4)	26(45.6)	57
≤4weeks	29(60.4)	19(39.6)	48 0.119
>4weeks	35(46.1)	41(53.9)	76

The proportion of eye lid disorders was significantly higher in males less than 40 years but lower in males older than 40 years. Late presentation of eye lid disorders was higher in females. ( $\chi^2 = 9.119$ ,  $df = 1$ ,  $p = 0.003$ ) Table 2.



**Figure 3.** Treatment of Patients with eye lid disorders.

More than 3/5<sup>th</sup> of the patients 82(66.1%) that presented with eyelid disorders had one form of surgical intervention ( $\chi^2 = 12.903$ ,  $df = 1$ ,  $p = 0.001$ ) Figure 3.

## 4. Discussion

The eye lid disorders seen in the oculoplastic subspecialty clinic of ophthalmology department of the tertiary institution was 8.3% of all new cases in this centre with male preponderance. An earlier study of analysis of ophthalmic plastic procedure in the same centre<sup>7</sup> showed a lower incidence which may be due to the fact that only cases that needed surgical procedures were included in the study. All other studies were silent on the incidence of eyelid disorders in their work<sup>1,2,6,8</sup>. This shows eyelid disorders are not uncommon though many may not be

vision-threatening or life-threatening but may cause important esthetic complications<sup>3,6</sup>. It has been reported that any deformity or disorder around the eye and orbit can negatively impact on the psychosocial, economic as well as educational achievement of affected persons<sup>8</sup>. The study revealed that majority of the eyelid disorders affected the young population. The proportion of eye lid disorders was significantly higher in males less than 40 years contrary to a study done in South India where there was female preponderance and higher means age<sup>1</sup>. This can cause negative effect on self worth and a lowered health related quality of life<sup>9</sup> couple with the fact that the few neoplastic ones could be life-threatening if not detected and treated early. These disorders should therefore be diagnosed and treated promptly. The higher male predominance in this study could be due to the fact that males utilized the eye care facility more than female counterparts as documented by different authors<sup>10,11</sup>.

A topmost eyelid disorder in this study is categorized as infective/inflammatory eye lid disorder which comprises among others Chalazion, Stye, Meibomitis and Blepharitis. This was closely followed by traumatic causes. This was similar to a study done in Nepal where traumatic eyelid disorder was second to eyelid tumors<sup>6</sup>. However, there were variable reported benign eye lid lesions from different countries<sup>12,13</sup>. The infective/inflammatory eyelid disorders being highest rank might be due to the fact that these conditions are commonest found in the young age group. The traumatic lid disorders in some cases could involve other ocular comorbidity which could result in unocular blindness. Traumatic eye lid disorders are preventable<sup>6</sup>. Therefore, every effort to prevent it with its attendant sequelae should be promoted through health education. Cases of Blepharoptosis (Image 1) with visually disabling problems were conspicuous in the oculoplastic clinic which has been documented in the earlier study<sup>14</sup>. However, the higher cases of ptosis in the previous published work in the same centre were due to the fact that all cases of ptosis regardless of varying causes were included in the study.

The proportion of both infective and non infective eyelid disorders was found to increase with duration before presentation. This was an unexpected pattern as most of the non infective cases were ocular emergencies arising from trauma to the globe which might result in lacerations of the eyelids which should have warranted early presentation to the specialist. Generally, majority of

patients with eyelid disorders presented after four weeks of onset of symptoms. Emergency eye diseases should ordinarily necessitate prompt presentation for diagnosis and management<sup>15</sup> but the late presentation seen in this study was similar to a study of profile of ocular emergency done in this centre<sup>16</sup>. The late presentation of eye lid disorders was worse in females than males. Reasons for delayed presentation could be looked into in future study.

Majority of the patients with eye lid disorders had one form of surgical interventions among which are Excisional Biopsy with or without eyelid reconstruction, direct lid closure, Incision and Curettage (I&C), Temporary Tarsorrhaphy, Electrolysis, Canalicular repair and Frontalis Brow Suspension. These procedures were carried out after careful and thorough examination by the ophthalmic specialists in a well equipped ophthalmic theatre. The excised tissues were sent for histopathology diagnosis in order to rule out the benign from the malignant eye lid disorders. The remaining patients were treated conservatively with good outcome.

## 5. Conclusion

The incidence of eyelid disorders is relatively high with infective/inflammatory causes as the commonest presentation in young male patients. Majority of patients with eyelid disorders presented after four weeks of onset of symptoms. Early presentation and accurate clinical and histopathological diagnosis with appropriate interventions will prevent both esthetic complications and loss of life from misdiagnosed potential malignant eyelid disorders.

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