



## Audit of Oculoplastic Presentations in a Tertiary Niger Delta Hospital, Nigeria

CS Ejimadu, AA Onua\* and EA Awoyesuku

Department of Ophthalmology, University of Port Harcourt Teaching Hospital, Nigeria

\*Corresponding Author: AA Onua, Department of Ophthalmology, University of Port Harcourt Teaching Hospital, Nigeria.

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### Abstract

**Aim:** To ascertain the presentation pattern of oculoplastic-related disorders in University of Port Harcourt Teaching Hospital Port Harcourt.

**Methods:** A retrospective hospital-based Study of patients presenting to the oculoplastic unit of the University of Port Harcourt Teaching Hospital between January 2017 and December 2019. Records of patients were retrieved, entered into Excel sheet, cleansed and analyzed using Statistical Package for Social Sciences (SPSS) version 25.

**Results:** The commonest case was Chalazion (32%) followed by Ocular Surface Squamous Neoplasia (8.9%), Thyroid Eye Disease, Ectropion and Nasolacrimal Duct Obstruction contributing 5.7% each. There were 49 (39.8%) males and 74 (60.2%) females. The male to female ratio was 2:3. The commonest affected age group was 21-30 years (33.3%), followed by 31 - 40 years (15.5%). The least affected age group were those that were above 70 years which constituted 2.4%.

**Conclusion:** Female gender and the age group of 21-30 were seen more with oculoplastic conditions probably due to the more sensitivity of females and also of these young adults to cosmetic blemishes posed by oculoplastic related cases.

**Keywords:** Oculoplastic Disorders; Pattern; University of Port Harcourt Teaching Hospital

### Introduction

Very often than not, oculoplastic disorders present in various forms in the General Out-Patient department and the ophthalmology clinics. Congenital and acquired disorders of the eyes abound. Of these, the orbital, ocular, lacrimal, lid, paranasal and ocular adnexal lesions are among the commonest presentation of these diseases [1]. The associated visual impairment could result in anatomical and functional disability, cosmetic deformation, psychosocial stigmatization, economic and educational deprivation [1,2]. The problem is however worse in the developing countries where contributing factors include ignorance, infections, malnutrition and lack of adequate eye care services especially in the rural population are prevalent [3]. The serious misfortune of losing one's eyesight or having a cosmetically unacceptable deformity is further worsened by poor rehabilitative and supportive measures in developing countries [4,5].

There are often serious economic implications in such instances, often leading to social dependence, lack of access to education, loss of productivity and income [5]. Quality of life of affected patients also tends to decline in the presence of ocular deformities. The Oculoplastic surgeon is therefore saddled with the responsibility of restoring function and structure of the eyelids, adnexa, and orbit and by extension quality of life. Prevalence of Oculoplastic disorders vary widely according to specific disease entities [1]. To the best of our knowledge there is no data on pattern of Oculoplastic disorders in our region. The study aims to determine the presentation pattern of oculoplastic disorders in University of Port Harcourt Teaching Hospital Port Harcourt within two years of running a specially designated oculoplastic clinic weekly.

### Materials and Methods

This was a retrospective hospital-based Study of patients presenting to the oculoplastic unit of the University of Port Harcourt

Teaching Hospital between January 2017 and December 2019. The university of Port Harcourt Teaching hospital is a tertiary Health Care institution in the Niger Delta region of Nigeria. The various ocular disorders in the hospital are routinely entered into oculoplastic register, in the department of ophthalmology from where the data were extracted. Relevant records of patients including socio-demographic data, diagnosis on presentation were retrieved, entered into Excel sheet, cleansed and analyzed using Statistical Package for Social Sciences (SPSS) version 25.

**Results**

A total of 124 clients participated in the study, 74 (59.7%) were females. Male to female ratio was 1:1.5. The mean age of the study participants was 31.9 ± 13.6 years; with age range of 6 - 81 years. Age group (21 - 30 years) had the highest proportion of participants (33.1%). The differences in the proportion of age groups between the male and female genders were not statistically significant (p = 0.633).

| Age Group (Years)                            | Male (n) % | Female (n) % | Total (n) % |
|--|------------|--------------|-------------|
| 0-10   | 6 4.9      | 7 5.6        | 13 10.5     |
| 11-20  | 7 5.6      | 5 4.0        | 12 9.6      |
| 21-30  | 14 11.3    | 27 21.8      | 41 33.1     |
| 31-40  | 10 8.1     | 9 7.3        | 19 15.4     |
| 41-50  | 7 5.6      | 10 8.1       | 17 13.7     |
| 51-60  | 3 2.4      | 8 6.5        | 11 8.9      |
| 61-70  | 2 1.6      | 5 4.0        | 7 5.6       |
| >70  | 1 0.8      | 3 2.4        | 4 3.2       |
| Total  | 50 40.3    | 74 59.7      | 124 100     |
| Pearson's Chi-Square = 5.223 p-value = 0.633 |            |              |             |

**Table 1:** Socio-demographic Distribution of the Study Population.

| Oculoplastic Disorders Orbit/Onchology | Frequency | Per cent |
|--|-----------|----------|
| Thyroid Eye Disease                    | 7         | 5.7      |
| Karposi Sarcoma                        | 1         | 0.8      |
| Ocular Surface Squamous                | 11        | 8.9      |
| Cyst of Zeis                           | 2         | 1.6      |
| Dermoid Cyst                           | 5         | 4.1      |
| Cyst of Moll                           | 6         | 4.8      |
| Lipodermoid                            | 1         | 0.8      |

|   |            |              |
|---|------------|--------------|
| Sebaceous Cyst                          | 1          | 0.8          |
| Empty Socket                            | 3          | 2.4          |
| Conjunctival Mass                       | 2          | 1.6          |
| Phthisis Bulbi                          | 2          | 1.6          |
| Orbital Malignancy                      | 4          | 3.2          |
| Proptosis                               | 4          | 3.2          |
| Implantation Cyst                       | 1          | 0.8          |
| Total                                   | 50         | 40.3         |
| <b>Dacryology</b>                       |            |              |
| Nasolacrimal Duct obstruction           | 7          | 5.7          |
| Dacryocystitis                          | 1          | 0.8          |
| Chronic Canaliculitis                   | 1          | 0.8          |
| Lacrimal Gland Tumour                   | 1          | 0.8          |
| Total                                   | 10         | 8.1          |
| <b>Facial Aesthetics</b>                |            |              |
| Chalazion                               | 40         | 32.0         |
| Ptosis                                  | 3          | 2.4          |
| Plexiform Neurofibroma Tosis            | 2          | 1.6          |
| Crouzon's Syndrome                      | 1          | 0.8          |
| Ectropion                               | 7          | 5.7          |
| Capillary Haemangioma                   | 2          | 1.6          |
| Essential Blepharospasm                 | 1          | 0.8          |
| Trichiasis                              | 2          | 1.6          |
| Lid deformity                           | 1          | 0.8          |
| Ankyloblepharon                         | 2          | 1.6          |
| Symblepharon                            | 2          | 1.6          |
| Dry Eye Secondary to Facial Nerve Palsy | 1          | 0.8          |
| Total                                   | 64         | 51.6         |
| <b>Grand Total</b>                      | <b>124</b> | <b>100.0</b> |

**Table 2:** Distribution of oculoplastic, Dacryological and Disorders in the Study Population.

**Discussion**

**Socio-demographic data**

The socio-demographic identities of patients presenting in oculoplastic clinics vary widely. In this study, a total of 124 clients participated, 74 (59.7%) were females. Male to female ratio was 1:1.5; with mean age of 31.9 ± 13.6 years and age range of 6 - 81 years (Table 1). In contrast to a study by Anunobi., *et al.* the commonest age group was that of children under 15 years with a frequency of

40.6% [6]. In a similar study by Bekibele., *et al.* in Ibadan Nigeria, 50% of cases were children and young adults from 0 to 20 years old [7]. However, in a study in Pakistan, Asad Aslam Khan., *et al.* observed a predominance of adults with 57.47% of cases [8] while Balogun., *et al.* had two peak age groups of 0 - 9 years (22.7%) and 20 - 29 years (19.3%) [1].

Our study also revealed that the age group (21 - 30 years) had the highest proportion of participants (33.1%) (Table 1). The differences in the proportion of age groups between the male and female genders were not statistically significant ( $p = 0.633$ ). There has also been varying results on gender distribution in oculoplastic cases. There was male predominance in a study by Assavedo., *et al.* with males constituting 60.8% of study population [9]. This was similar to the findings by Kaya., *et al.* [10] who had 60.4% of male subjects. Anunobi., *et al.* [6] in Nigeria also reported a male predominance in 56.0% of cases. Balogun., *et al.* found a female predominance in their study in Lagos Nigeria [1].

#### Distribution of oculoplastic disorders

In this study, the commonest oculoplastic disorder was Chalazion (32%) while about 8.9% was Ocular Surface Squamous, Thyroid Eye Disease, Ectropion and Nasolacrimal Duct Obstruction are about 5.7% each (Table 2). Our findings compare with those of Odugbo., *et al.* in Jos, Nigeria, and Akinsola., *et al.* in Lagos, Nigeria [11,12]. It was observed that fewer oculoplastic cases visit the specialist hospitals in our locality because majority of the cases are deemed minor and are therefore either managed at home, chemists or in peripheral clinics and fail to reach the tertiary centers [13]. The role of poverty and ignorance of the consequences of oculoplastic disorders are probably factors that need to be investigated.

Other oculoplastic disorders observed in our study were: Cyst of Moll, Plexiform Neurofibroma Tosis and Dermoid Cyst are 4.8%, 4.6% and 4.1% respectively. Proptosis, Orbital Malignancy, Empty Socket and Ptosis are 3.2%, 3.2%, 2.4% and 2.4% respectively. Individually, Cyst of Zeis, Trichiasis, Lid Deformity and Conjunctival Mass, Symblepharon and Ankyloblepharon account were 1.6% of Oculoplastic Disorders. Lastly, Dry eye secondary to facial Nerve Palsy, Lacrimal Gland Tumour, Implantation Cyst, Lid Deformity, Chronic Canaliculitis, Dacryocystitis, Lipodermoid. Sebaceous Cyst, Essential Blepharospasm, Crouzon's Syndrome, Kaposi Sarcoma were 0.8% respectively (Table 2).

#### Conclusion

Chalazion, ocular Surface Squamous neoplasm, thyroid eye disease, ectropion and nasolacrimal duct obstruction were the most common oculoplastic-related disorders presented in the oculoplastic unit of University of Port Harcourt Teaching Hospital Port Harcourt during the period under review. The female gender and the age group of 21 - 30 were seen more probably due to the more sensitivity of females and also of these young adults to cosmetic blemishes posed by oculoplastic related cases.

#### Consent and Ethical Approval

As per university standard guideline participant consent and ethical approval has been collected and preserved by the authors.

#### Competing Interests

Authors have declared that no competing interests exist.

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