

An Observational Study on Profile of Proptosis In A Tertiary Health Care Centre

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ABSTRACT-

BACKGROUND- Proptosis is forward protrusion of eye ball. Due to its varied presentation, a profile of these cases would be helpful for an ophthalmologist to understand the spectrum of etio-pathology and thus take an early measure to save vision and even life of a patient.

OBJECTIVE- To study the profile of proptosis in a tertiary care centre.

MATERIAL AND METHODS- This retrospective study was conducted at a tertiary care centre in Odisha based on records on clinical analysis of patients attending eye OPD, eye emergency and those admitted to the inpatient department of ophthalmology and referred from other departments of this institution. A total of 135 patients with 177 eyes were included in the study.

RESULTS- Among 135 patients, 77 were male and 58 were female. Most of the patients (52) were between 41 to 60 years of age. Bilateral proptosis were seen in 42 patients and unilateral proptosis in 93 patients. Neoplastic proptosis was most common affecting 70 eyes of 57 patients. Thyroid ophthalmopathy was seen in 48 eye of 32 patients. Orbital cellulitis was responsible for 18 cases.

CONCLUSION- Unilateral proptosis was more common than bilateral one and neoplasia was the commonest cause of proptosis. This study showed a large number of cases of neoplastic proptosis, which is alarming.

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I. Introduction

Proptosis is forward protrusion or displacement of eyeball. It may be caused by local orbital diseases, diseases of paranasal sinuses or systemic disorders involving some distant organs⁽¹⁾. The etiological spectrum of proptosis is wide ranging from inflammation, infection, neoplasia to endocrine and vascular disorders⁽²⁾⁽⁷⁾⁽⁸⁾. Several studies on proptosis revealed that the incidence and sex and age distribution of proptosis varies among different population in different geographical areas⁽³⁾⁽⁴⁾⁽⁵⁾⁽¹²⁾. There is a very little information on various aspects of proptosis in this part of eastern India. This retrospective study is likely to reflect the demographic and etiological profile of proptosis in this area.

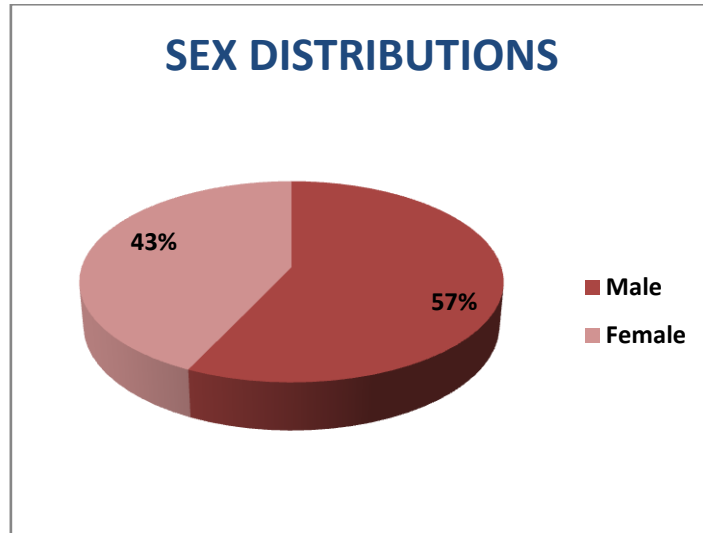
II. Material And Methods

An observational study was undertaken in our department of ophthalmology with prior written consent taken from the patients. Patients of both sexes visiting the Outpatient Department of Ophthalmology in Hi-Tech Medical College in Odisha having proptosis were included in our study. Plastic ruler was used and a measurement of more than 21 mm and/or a difference of 2 mm between two eyes were considered significant. Demographic details, clinical presentations,

detailed ophthalmological and systemic examination and investigation (X-Ray, CT scan, USG- B Scan, MRI, Pathology report) details were obtained. A total of 135 patients with 177 eyes were included in the study. Patients with inadequate information were excluded. Data analysis was done using microsoft excel.

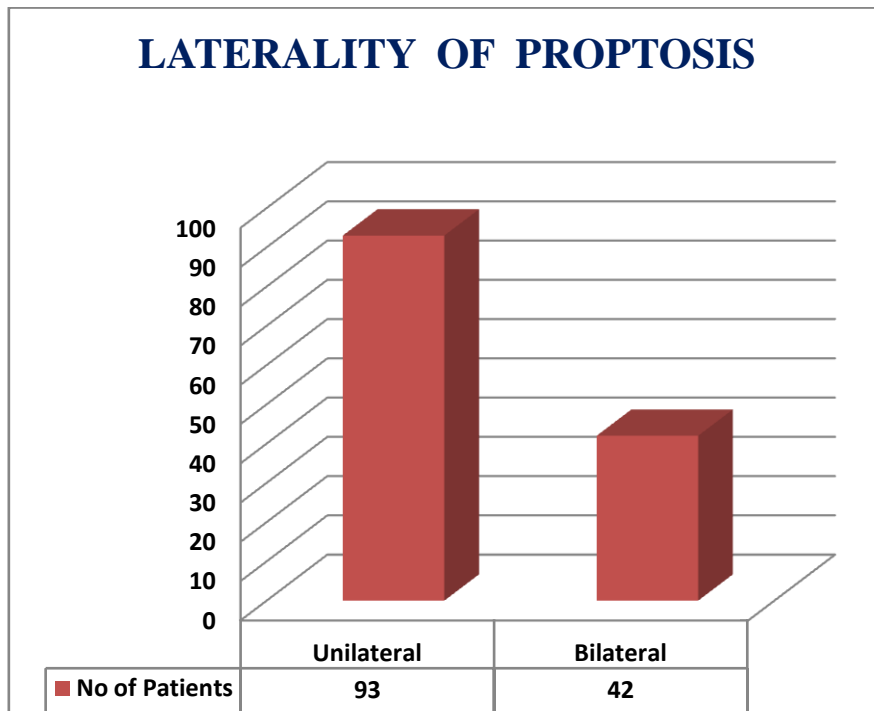
III. Results

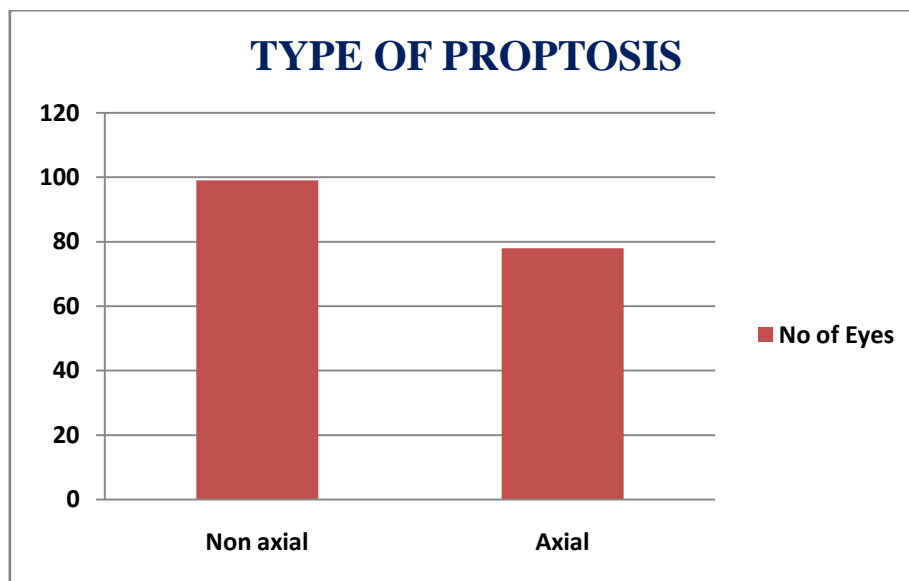
Among 135 patients, 77 were male and 58 were female. Age range was 4 months to more than 60 years. But most of the patients (52) were between 41 to 60 years of age.



Age	No of Patients
4months-18 years	28
19-40 years	32
41-60 years	52
>60 years	23

Bilateral proptosis were seen in 42 patients and unilateral proptosis in 93 patients . Out of 177 eyes, nonaxial proptosis were more common to be present in 99 eyes and axial proptosis in 78 eyes .





Neoplastic proptosis was most common affecting 70 eyes of 57 patients. In this group, 44 patients had unilateral proptosis and only 13 patients had bilateral proptosis. Thyroid ophthalmopathy was seen in 48 eye of 32 patients. Orbital cellulitis was responsible for 18 cases of proptosis. Only one patient had bilateral cellulitis. Congenital lesions were seen in 5 patients among which one had unilateral and 4 had bilateral proptosis. Cystic lesions were seen in 16 eyes of

12 patients of which 2 cases were orbital myocysticercosis, 3 frontal and 2 ethmoidal mucocele, 1 haematic cyst and 4 hydatid cyst. Trauma was responsible for 3 cases of unilateral proptosis. Diagnosis was not confirmed in 8 cases of 4 unilateral proptosis and 4 bilateral proptosis.

ETIOLOGY	NO OF PATIENTS	NO OF EYES	UNILAERAL	BILATERAL
Neoplasm	57	70	44	13
Thyroid ophthalmopathy	32	48	16	16
Cellulitis	18	19	17	01
Congenital	05	09	01	04
Trauma	03	03	03	-
Cystic lesions	12	16	08	04
Undiagnosed	08	12	04	04

IV. Discussion

Proptosis is not very common in ophthalmological practice but because of its varied presentation and the etiology need to be carefully evaluated as it may be vision threatening and can be a sign of a life threatening systemic diseases. This study showed a male predominance which is similar to the finding by Khan et al Loganathan and Radhakrishnan⁽⁶⁾ and Sharma et al. Unilateral proptosis was more common in this study as was found by S. Guthorpe JD and HochmanM⁽⁹⁾. Neoplastic proptosis (41.91%) was the commonest variety found in our study. Neoplastic etiology probably explained the predominance of unilateral and non-axial proptosis in this study. Thyroid ophthalmopathy was the second most common cause of proptosis in this study⁽⁶⁾⁽¹¹⁾. In this study, it showed frequent occurrence of bilateral proptosis in thyroid ophthalmopathy which is consistent with the findings by Naidu et al. Diagnosis was not confirmed in 8 cases. According to A. Mordata, some cases remain unexplained for which orbital exploration might be needed.

V. Conclusion

This study showed a large number of proptosis cases which were neoplastic. This might be alarming. But again, being a tertiary care centre, a large number of cases were referred from different specialities. So to get a more precise picture of etio-pathological profile of proptosis, a population based study is necessary.

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