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Ophthalmology Research

Ocular Morbidity in People Aged 65 and Over in the Ophthalmology Department of the Bouake University Hospital From 2013 to 2018

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ABSTRACT

Introduction: *Morbidity can be defined as the relative nature of a disease, an unhealthy characteristic, or the number of individuals affected by a disease in a given population over a specific period. It can be perceived as a state of illness, or a more or less profound psychological or mental imbalance.*

The aim of this study was to analyze ocular morbidity in subjects aged 65 and over at the Bouaké University Hospital Center in order to contribute to improving the care of elderly people in our setting.

Materials and Methods: *This was a retrospective cross-sectional descriptive study conducted on patients aged 65 and over who consulted at the ophthalmology department of the Bouaké University Hospital Center between January 1, 2013, and December 31, 2018. The study took place from June 1 to July 31, 2019, at the ophthalmology department of the Bouaké University Hospital Center. The patients included in the study were registered using an anonymous, individual questionnaire. Qualitative variables were expressed as proportions, and quantitative variables as means with ranges.*

Results: *Of the 1099 patients enrolled, the mean age was 73.63 years, and the sex ratio was 0.86. Urban populations were the most represented (72.97%), and housewives constituted the most affected socioeconomic group (44.04%). The most frequent reason for consultation was decreased visual acuity (72.2%). Degenerative diseases were the most common (72.52%), with senile cataracts being the most prevalent (83.2%).*

Conclusion: *Ocular morbidity in people aged 65 and over remains poorly understood in our societies. This would remain a vast field of study for a better understanding and improvement of care for the elderly.*

Keywords

Ocular morbidity, People aged 65 and over, Bouaké University Hospital.

Introduction

Morbidity can be defined as the state of being diseased or unhealthy, or as the number of individuals affected by a disease within a specific population over a given period [1]. It can be perceived as a state of illness or of psychological or mental imbalance of varying severity. It also encompasses the set of causes or conditions that may predispose an individual to disease [2].

Several studies have shown that the number of elderly people will increase in the coming years, as evidenced by demographic projections from the National Institute of Statistics and Economic Studies (INSEE) in France. Indeed, the proportion of the population aged 65 and over rose by more than 15% between 1990 and 2000, reaching 9.4 million people. Between 2000 and 2010, this figure was projected to rise from 15.9% to 16.9% (or 10.4 million) of the total population, eventually reaching 28% by 2050 [3]. We found no data regarding such projections for Côte d'Ivoire. However, it is safe to say that improved living conditions—and the associated increase in life expectancy—would lead to a rise in the

population of individuals aged 65 and over in Côte d'Ivoire. This, in turn, would result in a higher prevalence of "diseases affecting the elderly" in general, and ocular pathologies in particular. But what is the current status of ocular morbidity in our local setting?

The aim of this study was to analyze ocular morbidity among individuals aged 65 and older at the Bouaké University Hospital, with the goal of contributing to improved care for the elderly in our local context.

Materials and Methods

We conducted a descriptive, retrospective, cross-sectional study in the Ophthalmology Department of the Bouaké University Hospital over a two-month period.

The study focused on patients who visited the Ophthalmology Department during the study period, had medical records containing the information required for the survey forms, and were duly listed in the department's consultation registers.

All individuals aged 65 and older who visited the Ophthalmology Department of the Bouaké University Hospital between January 1, 2013, and December 31, 2018, were included.
Patients were excluded if:

- Their records were incomplete
- Their records were illegible

Systematic sampling was used based on consultations involving subjects aged 65 and older at the department between January 1, 2013, and December 31, 2018. The number of cases corresponded to the number of consultations rather than the number of individual patients (as a single person might have visited multiple times for different reasons).

The variables studied included the patients' sociodemographic data and the diagnosis made or pathology identified.
Data were collected using a survey form, drawing on information recorded in the various consultation registers and verified against patients' medical records where necessary.

Results

Prevalence of morbidity

Age-Sex

The average age was 73.63 years (±27.74), ranging from 65 to 113 years. The 65-75 age group accounted for 66.2%. Female patients made up 54% with a sex ratio of 0.86.

Occupation - Nationality - Origin

Housewives accounted for 44.04% of cases. Farmers made up 18.56%. Ivorian patients represented 90% of cases. Patients living in urban areas made up 72.97%.

Reason for Consultation

Decreased visual acuity was reported by 41.3%, followed by eye itching at 11.5% and tearing at 10.2%.

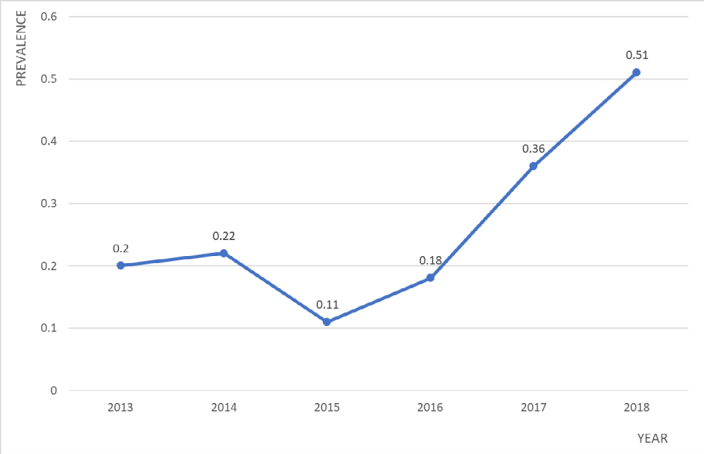

Figure 1: Prevalence of morbidity.

There was an increase in morbidity over the years, with a decline in 2015.

Diagnosed conditions

Table 1: Distribution of patients according to diagnosed conditions.

DIAGNOSED PATHOLOGY	Staff	%
DEGENERATIVE PATHOLOGY	**826**	**65,9**
PATHOLOGY INFLAMMATORY/INFECTIOUS	**116**	**9,2**
TRAUMATIC PATHOLOGY	37	2,9
PATHOLOGY RELATED TO A GENERAL DISEASE	46	3,6
REFRACTION DEFECTS	61	4,8
OTHER CONDITIONS	167	13,3
Total	**1253**	**100**

Degenerative diseases accounted for 65.9% of the conditions encountered, with senile cataracts leading at 78%. Inflammatory conditions were represented by conjunctivitis at 47.4%.

Regarding eye complications related to a general illness, hypertensive retinopathy accounted for 61% of eye complications from a general illness.

Other conditions

Table 2: Distribution of patients according to other conditions.

OTHER EYE CONDITIONS	STAFF	%
NON-GLAUCOMATOUS OPTIC NEUROPATHY	**61**	**36,5**
PTERYGIUM	49	29,3
INSULATED HTO	24	14,3
COMPLICATED CATARACT	8	4,8
IMPLANT MOVEMENT	8	4,8
ENTROPION/TRICHIASIS	5	3
ESSENTIAL BLEPHAROSPASM	4	2,4
SPONTANEOUSLY RUPTURED CORNEAL STAPHYLOMA	4	2,4
BULBAR PHTHISIS	2	1,2
NEOVASCULAR GLAUCOMA	2	1,2
TOTAL	**167**	**100**

Non-glaucomatous optic neuropathy was present in 36.5% of the patients.
The purpose of this work was to analyze eye health issues in people aged 65 and over at the Bouaké University Hospital, with the aim of helping improve care for older adults in our setting.

Discussion

Prevalence

Excluding the year 2015, the prevalence of morbidity increased over the study period, rising from 0.2 in 2013 to 0.51 in 2018.

This increase could be attributed to the rising number of elderly people seeking consultations during this period. Indeed, a demographic study conducted in 2014 indicated that the proportion of individuals aged 65 and older was increasing over time [7].

The decline observed in 2015 was likely due to a lack of equipment in the department that year, resulting in fewer consultations.

Age

In our study, the mean age was 73.63 years (±27.74), with a range of 65 to 113 years. Our result was consistent with that of Mahesh et al. [5], who reported a mean age of 74.34 years (±8.19). Our figure was also close to that of Tzu-Lun et al. [6], who found a mean age of 71.65 years.

In our series, the 65–75 age group was the largest, accounting for 66.2% of the total. This result was higher than those reported by Mamadou [7] and Sidi [8] in Mali, who noted the 31–45 and 61+ age groups as the most represented, with rates of 17.3% and 34.5%, respectively.

This difference may be explained by the fact that our study focused exclusively on the elderly (aged 65 and older), whereas most other studies included patients of all ages.

Sex

A female predominance was observed, with a sex ratio of 0.86.
Our result differed from that of Koffi et al. [9], who found a male predominance with a sex ratio of 1.2. Elsewhere, studies by Mamadou [7] and Sidi [8] in Mali noted a female predominance, with sex ratios of 0.61 and 0.60, respectively. Similarly, Mahesh et al. [5] observed a population that was 78.2% female in their study conducted in Nepal. Consequently, there appears to be no link between ocular morbidity and sex. Occupation Homemakers constituted the most affected socio-professional group, at 44.04%. They were followed by farmers, at 18.56%.

Our results were similar to those of Koffi et al. [9], who reported 41.05% homemakers.
These findings may be attributed to homemakers' frequent exposure to wood fires; given that our region is in a low-income setting, the use of charcoal or wood fires for cooking is common. The high availability of homemakers to attend consultations is also a contributing factor.

Nationality

Ivorians accounted for 89.71% of cases. This result is likely explained by the fact that the study was conducted in Côte d'Ivoire. However, the presence of multiple nationalities suggests there is no link between ocular morbidity and nationality.

Place of residence

The majority of patients lived in urban areas (72.97%).
This can be explained by the concentration of the population in urban areas within our country. According to the 2014 General Census of Population and Housing (RGPH), 50.3% of the population lived in urban areas [4]. Furthermore, specialized ophthalmology facilities are located exclusively in urban areas, resulting in easier access for these populations.

Reason for consultation

In our study, decreased visual acuity was the most common reason for consultation, accounting for 41.3% of cases.
These results were similar to those of Koffi et al. [9], who noted a predominance of decreased visual acuity at 84.21%. However, elsewhere, the work of Mamadou [7] identified ocular itching as the primary reason for consultation (23.3%), followed by reduced visual acuity (12.02%).
In addition to reduced visual acuity, ocular itching was also noted (11.5%).

Diagnosed conditions

Among the conditions observed in elderly subjects, degenerative disorders were the most prevalent (73.7%), followed by inflammatory disorders (7.64%).

Our results were consistent with existing literature. Indeed, several studies have shown that the elderly are more prone to age-related eye diseases. This may be explained by the acceleration of degenerative processes associated with aging.

Senile cataract was the most common degenerative condition in our study, accounting for 76.3% of cases.
Our results aligned with the literature; specifically, Sidi [8], Bernice [10], and Tzu-Lun Huang et al. [6] reported senile cataract rates of 55.5%, 40%, and 82.6%, respectively, in their studies.

In contrast, a study by Kahaki K. et al. [11] in Kenya on the prevalence and causes of ocular morbidity identified presbyopia as the leading cause (25.11%).
However, according to the WHO [12], cataracts remained the primary cause of blindness in the sub-region, accounting for 60% of cases.

The high prevalence of senile cataracts in our study could be attributed to the growing elderly population, the tropical climate, and adverse living conditions.

In addition to cataracts, other ocular conditions were observed in the elderly, notably hypertensive retinopathy (61%), conjunctivitis

(40.6%), corneal dystrophy (33.9%), keratitis (25%), and ocular globe contusions (12.7%).

Conclusion

Ocular morbidity among individuals aged 65 and older represents a significant public health issue, particularly as the elderly population continues to grow over time. The mean age was 73.63 years, with the majority of patients falling within the 65–75 age range. Populations living in urban areas—specifically housewives—were the most affected. Reduced visual acuity was the most common reason for consultation. Degenerative conditions predominated, with senile cataract being the leading diagnosis.

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