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Research Article

Ocular Diseases at the Medical-Surgical Clinic Ophthalmology of Brazzaville

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Abstract

The causes of blindness are diverse, including infectious (dominated by trachoma and onchocerciasis) and non infectious. The objective of this study was to identify the most common ocular diseases in ophthalmology consultation.

Patients and methods: This was a retrospective descriptive study, based on information collected from medical records at the medical-surgical clinic Ophthalmology of Brazzaville. The study period was from January 1 to December 31, 2018, a period of 1 year. All patients who consulted during the study period were included. The variables studied were age, sex, motive for consultation and diagnosis.

Results: Our sample consisted of 908 females versus 528 males, or a sex ration of 0.58. It was represented by 10.72% of patients under 15 years against 21.58% of patients over 60 years. Overall, the most common ocular disease were refractive errors followed by conjunctivitis. Cataracts were the third leading cause of consultation with 12.39% of cases followed by glaucoma with 6% of cases.

Conclusion: Ocular diseases in private ophthalmology practice in Brazzaville remain dominated by conjunctivitis and refractive errors, followed by cataract and glaucoma. We found no cases of trachoma or onchocerciasis.

Keywords: Ocular diseases; Blindness; Ophthalmology consultation

1. Introduction

Blindness is a public health problem [1]. In the 1950s, long before the official launch of a blindness prevention program, WHO's early efforts in the fight against blindness were directed towards the prevention and eradication of trachoma [2]. In 1978, WHO launched the Blindness Prevention Program, expanding its targets to include onchocerciasis with xerophthalmia and cataracts [2]. In 1999, the VISION 2020 program [3], the right to sight initiative was jointly launched by the WHO and and the International Agency for the Prevention of Blindness for sub-Saharan Africa. It identified five diseases which required priority action in the first phase: cataract, trachoma, onchocerciasis, childhood blindness, refractive errors and low vision services. Concomitant with the recent reduction of the frequency of infectious diseases such as onchocerciasis and trachoma was marked new emerging causes of blindness. From that time onwards, much attention should be given to age-related chronic eye diseases which proved to be potential leading causes of avoidable blindness over the next decades [1]. All of these programs require evidence to put in place appropriate strategies. Since the study by Negrel [4] in 1990 on the causes of blindness, to date the Congo has no data on eye diseases in the general population. However, there are some hospital studies on childhood eye diseases [5, 6]. The objective of this study was to identify the most common ocular diseases in ophthalmology consultation.

2. Patients and Methods

This was a retrospective descriptive study, based on information collected from medical records at the medical-surgical clinic Ophthalmology of Brazzaville. This health facility has been implemented by the Congolese Association for the Preservation of Sight which is affiliated to the program in the fight against blindness including an option for cataract surgery. The study period was from January 1 to December 31, 2018, a period of 1 year. All patients who consulted during the study period were selected. Inclusion criteria-The patient should be examined by an ophthalmologist during the study period. Non-inclusion criteria-File not specifying the diagnosis. The variables studied were age, sex, motive for consultation and diagnosis. Statistical analyses were performed using the statistical software packages Epi-Info 7.

3. Results

Age groups	Male	Female	Total	%
1 to 15 years old	58	96	154	10.,72
16 to 40 years old	168	332	500	34.82
41 to 60 years old	172	300	472	32.86
Over 61 years old	130	180	310	21.58
Total	528	908	1436	100%

Our sample consisted of 908 females versus 528 males, or a sex ration of 0.58. It was represented by 10.72% of patients under 15 years against 21.58% of patients over 60 years.

Table 1: Distribution of patients by age group and sex.

Diseases	**Enrolment**	**%**
Refractive errors	474	33
conjunctivitis	360	25.06
Cataract	178	12.39
Glaucoma	86	5.98
Pterygium	70	4.87
Trauma	38	2.64
cephalalgia	24	1.67
Maculopathies	16	1.11
Retinopathy	8	0.56
Others	182	12.67
Total	1436	100%

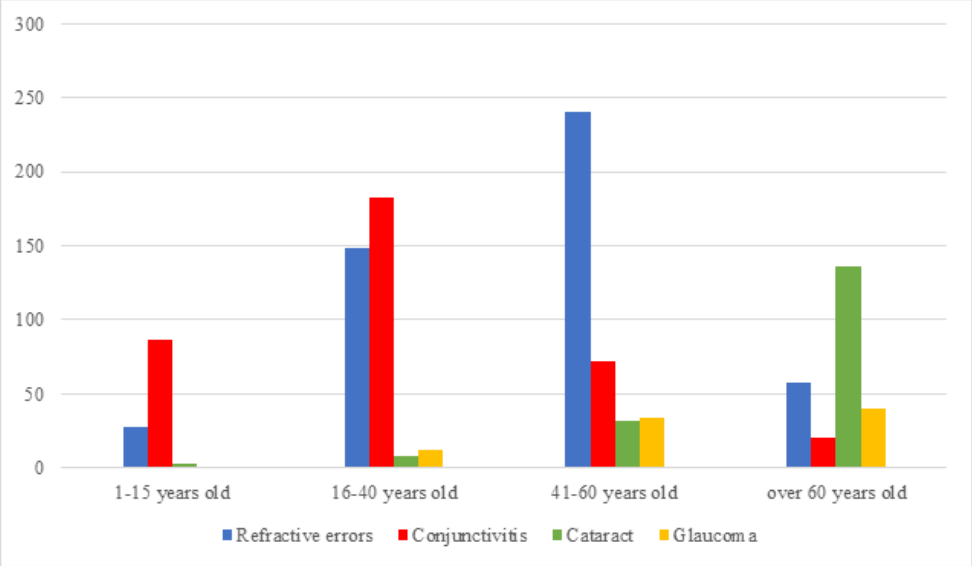
Overall, pathologies are dominated by refractive errors followed by conjunctivitis. Cataract was the third leading cause of consultation with 12.39% of cases followed by glaucoma with 6% of cases.

Table 2: Overall diseases.

Pathologie											
Age	**Refractive errors**	**conjunctivitis**	**Cataract**	**Glaucoma**	**Pterygium**	**Trauma**	**cephalalgia**	**Maculopathies**	**Retinopathy**	**Others**	**Total**
0-15 years old	28 (18.18%)	86 (55.84%)	2 (1.3%)	0 (0%)	0 (0%)	8 (5.19%)	0 (0%)	0 (0%)	0 (0%)	30 (19.48%)	154
16-40 years old	148 (29.6%)	182 (36.4%)	8 (1.6%)	12 (2.4%)	30 (6%)	18 (3.6%)	14 (2.8%)	4 (0.8%)	2 (0.4%)	82 (16.4%)	500
41-60 years	240 (50.84%)	72 (15.25%)	32 (6.78%)	34 (7.2%)	34 (7.2%)	8 (1.69%)	8 (1.69%)	0 (0%)	6 (1.27%)	38 (8.05%)	472
More than 60 years	58 (18.71%)	20 (6.45%)	136 (43.87%)	40 (12.9%)	6 (1.94%)	4 (1.29%)	2 (0.65%)	12 (3.87%)	0 (0%)	32 (10.32%)	310

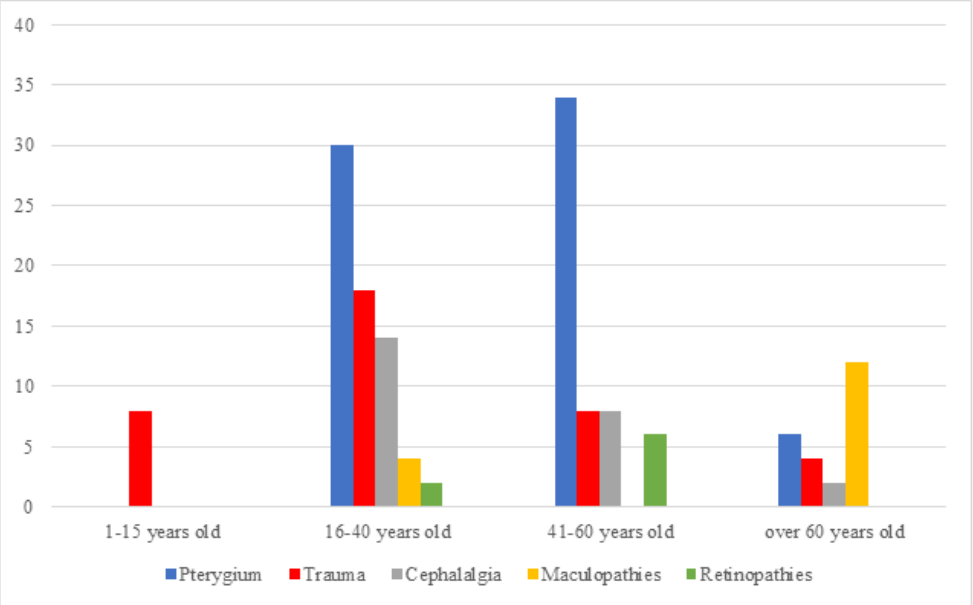
Conjunctivitis accounts for more than 55% of consultations in patients under 15 years of age. Glaucoma represents 2% of pathologies between 16 and 40 years old. Glaucoma affects about 13% of patients in this age group.

Table 3: Distribution of ocular diseases taking into account age.



The frequency of refractive errors increases gradually between 1 and 60 years of age, then gives way to cataracts, which is by far the leading cause of consultation after the age 60, with 1.3% of cases before age 15, its frequency increasing to 43 87% after 60 years. The frequency of glaucoma also increases with age.

Figure 1: Evolution of the most frequent ocular diseases taking into account age.



The traumas are found at any age, but with a peak of frequency between 16 and 40 years. Maculopathies are more common after 60 years, dominated by AMD.

Figure 2: Evolution of moderately frequent pathologies taking into account age.

4. Discussion

We found a female predominance with a sex ratio of 0.58. In Nigeria Adeoye [7] in Ilesa (south-west Nigeria) also found a female predominance with a sex ratio of 0.83, while in Ibadan (same area, south-west Nigeria), Scott [8] noted a male predominance with a sex ratio of 1.4. This sex predominance varies by study. Kassir [9] in Saida (Lebanon) did not find any predominance by sex with a sex ratio of 0.93. Overall ocular diseases were dominated by refractive errors and conjunctivitis with respectively 33% and 25% prevalences. Kassir [9] in Lebanon had similar results with 37.8% of refractive errors compared to 33.2% of conjunctivitis. In Nigeria, however, in Ilesa, Adéoyé [7] found cataract as the dominant ocular disease with 26% of cases, followed by refractive errors with 18.5%. Allergic conjunctivitis accounted for 12.4% of cases. Always in Nigeria, in Ibadan, Scott [8] reported a predominance of conjunctivitis 32.9% of cases followed by cataracts with 14.7% of cases. Refractive errors were ranked fourth with 9.9% of cases. Overall, the dominant ocular diseases remain the same. Their prevalence varies according to the quality of eye care services offered in each study centers. Given that cataract surgeries are not performed at the medico-social center of Saida in Lebanon, only 6% of cases where reported. On the other hand, at the Ilesa center in Nigeria [7], where cataract surgeries are performed, 26% of cases were noted. Monsudi [10] who works in a reference center of a health district noted 32.3% of cataracts.

Other factors may influence the prevalence of cataract, such as cataract surgery rate, life expectancy in the region or the amount of patients in the 60-year-old age group in the study. With less than 2% of patients over 60 years old, Koki [11] reported a cataract prevalence of 3.4% among still professionally active military and police officers. Age is an important factor in the occurrence of ocular diseases. Conjunctivitis dominated ocular diseases up to 40 years old whereas refractive errors prevailed from 41 to 60 years old. Cataract was the most frequent ocular disease beyond 60 years old. Glaucoma was the fourth most common ocular disease with 5.98% of cases in our study, the 5th for Scott [8] with 5.3% of cases, the 4th for Adéoyé [7] with 10.9% of cases. In the reference center of Monsudi [10] reported 18.3% of cases of glaucoma (2nd position behind the cataract) due to the quality of eye care services offered. The prevalence of glaucoma gradually increased with age in our study, ranging from 0% between 0 and 15 years of age to 12.9% in patients over 60 years of age.

Other ocular diseases identified but relatively frequent were represented by pterygium, ocular trauma, headache, retinopathy and maculopathy. Pterygium, which represented 4.7% of patients in our study, accounted for 4.4% of cases at Monsudi [10]. More frequent between 16 and 60, it is a common disease in young subjects and professionally exposed [12]. Eye trauma, 2.64% of cases in our study, 12.8% of cases and 3rd motive of consultation in Scott's study, are found at any age predominating between 16 and 40 in our study. Ocular trauma is a major cause of transient monocular blindness [13]. Headaches are relatively common causes of ophthalmology consultation, and Kaimbo [14] noted that patients are usually referred to us by colleagues (57% of cases), including neuropsychiatrists. In 46% of the cases, the ocular examination is normal, and in a quarter of cases they are associated with ametropia [14]. Maculopathy remains relatively less frequent with a prevalence of 1.1%, but this prevalence increases to 3.87% in subjects over 60 years old, dominated by AMD. Retinopathies affect more relatively young people in our study between 41 and 60 years of age. Ocular diseases in private ophthalmology

practice in Brazzaville remain dominated by conjunctivitis and refractive errors, followed by cataract and glaucoma. We found no cases of trachoma or onchocerciasis.

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