Evaluation of ophthalmic emergencies in a public reference hospital in Pernambuco

Avaliação das urgências oftalmológicas em um hospital público de referência em Pernambuco

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ABSTRACT

Purpose: To evaluate ophthalmological emergencies in a public reference hospital in Pernambuco. Methods: Cross-sectional retrospective study with 26,358 patients attended in the ophthalmic emergency Altino Ventura Foundation, in the period January to June 2013. Data were collected using protocols based on electronic registration forms of ophthalmological emergency. Results: It was observed that 52.5% of patients were male, 42.5% were aged 21-40 years; 90.8% were from the region metropolitan area of Recife; 55% classified as less severe. The main diagnoses were conjunctivitis (35.17%) and ocular trauma (19.25%). Conclusion: The prevalence of male patients, aged 21-40 years, from the metropolitan area of Recife, classified as low complexity, attended in January, on Monday, with the diagnosis of conjunctivitis, followed by ocular trauma.

Keywords: Emergencies; Conjunctivitis; Eye abnormalities; Eye injuries; Hospital, public; Emergency medical services

RESUMO

Objetivo: Avaliar as urgências oftalmológicas em um hospital público de referência de Pernambuco. Métodos: Estudo transversal e retrospectivo, com 26,358 pacientes atendidos na emergência oftalmológica da Fundação Altino Ventura, no período janeiro a junho de 2013. Os dados foram coletados por meio de protocolos baseados nas fichas de cadastro eletrônicas da emergência oftalmológica. Resultados: Observou-se que 52.5% dos indivíduos eram do gênero masculino e 42.5% encontravam-se na faixa etária de 21 a 40 anos; 90.8% eram provenientes da região Metropolitana de Recife e 55% dos casos foram classificados como de baixa gravidade. Os diagnósticos mais frequentes foram conjuntivite (35,17%) e trauma ocular (19,25%). Conclusão: Houve prevalência de pacientes do gênero masculino, na faixa etária de 21 a 40 anos, proveniente da região Metropolitana do Recife, classificado como baixa gravidade, atendidos no mês de janeiro, na segunda-feira, com o diagnóstico de conjuntivite, seguida por trauma ocular.

Descritores: Emergências; Conjuntivite; Anormalidades do olho; Traumatismos oculares; Hospitais públicos; Serviços médicos de emergência

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INTRODUCTION

Ophthalmological emergencies, although usually not associated with risk of death, can cause irreversible decrease in visual acuity and poor quality of life if not treated properly\(^1,2\).

In the United States of America, the ophthalmologic emergencies account for about 3% of admissions in the emergency room\(^3\), and in the General Hospital of the University of São Paulo 13.6% of admissions in the general emergency services\(^4\). This high demand requires attention of the professionals involved and structural and material resources able to meet adequately this people\(^5\).

The screening process involves the classification and prioritization of patients at different levels of emergency care\(^6,7\). The Altino Ventura Foundation located in Recife offers specialist in ophthalmologic emergencies 24 hours every day, and represents the largest ophthalmic emergency public service in the State of Pernambuco, which has more than 9 million people\(^8\), as well as the northeast of Brazil.

The aim of this study is to assess the characteristics of the ophthalmologic emergencies at AVF, in order to guide the policies for access to diagnosis and treatment of ocular emergencies in Pernambuco.

METHODS

We conducted a cross-sectional and retrospective study, with a total of 34,870 patients attended in ophthalmic emergency of Altino Ventura Foundation (AVF) in the period from January to June 2013. Of these, 8,512 patients were excluded for presenting complaints not characteristic of eye emergency or incomplete data in the medical report, with a total of 26,358 cases studied.

All medical records were reviewed after project approval by the Ethics Committee of the Altino Ventura Foundation under number 15782413.3.0000.5532 and authorization of the responsible for the archives of the Institution. The data were collected by means of the electronic record of the emergency of the FAV ophthalmologic emergency in the period from June to August 2013.

The variables studied were: gender, age, city of origin, severity and ocular diagnosis. The severity of the cases was classified as high, medium, and low.

The data obtained were treated by methods of descriptive statistics; the categorical variables were expressed as absolute frequencies. For the construction of charts and tables we used the software Microsoft Excel\textsuperscript{®} 2010.

RESULTS

In relation to the sociodemographic factors, there was a prevalence of males (52.5%) aged between 21 and 40 years (42.5%) and from the metropolitan region of Recife (90.8%).

When the severity of cases seen in the emergency room was assessed, most cases were classified as low gravity (55%), followed by medium (42.6%) and high (2.4%).

The diagnosis found among patients seen at the ophthalmologic emergency at FAV is described in table 1.

DISCUSSION

Ophthalmological emergencies represent an imminent danger of eye damage\(^12,9\), are important causes of attendances in the emergency room, and account for 3-7% of the total medical emergencies in a general hospital\(^10\). Studies show that there is a significant improvement on the visual prognosis of patients who underwent early surgical or clinical intervention\(^11\).

As well as the current study that demonstrated the prevalence of male gender in 52.5%, a study conducted by Kara-Jain et al. with 100 patients treated in the Ophthalmologic Emergency Service of the Clinical Hospital of the State University of Campinas\(^2\) and other researches\(^12,13\) found the same pattern, probably justified by the reality of men being more exposed to risk factors such as: dangerous professions, traffic and sports.

In this analysis, the most prevalent age group was from 21 to 40 years, being similar to the data found in the literature\(^10,14-16\), which can be explained by the fact that this age group represent a large proportion of the economically active population being more susceptible to various risk situations in their professional activities\(^15\).
It was observed that most patients were from the metropolitan region of Recife, which is justified by the central location of FAV's emergence in the city of Recife, which runs twenty-four hours a day, seven days a week, facilitating the access to the service for diagnosis, treatment and follow-up of ocular emergencies.

The finding that 9.2% of patients lived far from the hospital is worrisome because the patient often requires not only the first appointment, but also some returns for review and follow up of response to treatment, often hampered by the long displacement from the city of residence to access the ophthalmologic emergency.[2,17]

The study showed that more than half of the cases attended were classified as low severity emergencies. Improper use of emergency services results in overcrowding, inadequate use of resources, decreased effectiveness of quality of care, increased costs and patient dissatisfaction[18,19]. This fact is highlighted in studies[2,4] in which most patients admitted in the ophthalmologic emergencies could be diagnosed and treated at health care units at primary and secondary levels.

The most frequent diagnosis was conjunctivitis, followed by eye trauma (Table I), which agrees with other studies published in the literature[1,4,10,20].

Ocular trauma itself represents an emergency, because it can develop with poor prognosis, causing serious complications and consequences to the patient, among which irreversible loss of vision[20]. Therefore, it is essential the implementation of health promotion programs and educational campaigns on the use of protective equipment and risk of accidents, including in the workplace, in order to reduce the incidence of ocular trauma[10,12,22].

Studies like the present one are important to seek improvement in the primary and secondary health care, so that qualified general practitioners are capable of treating ophthalmic disorders of less complexity, avoiding unnecessary referrals to reference services. The objective was also further dissemination of information about eye diseases in emergency services, in order to develop better management and planning strategies to prevent, protect and treat the susceptible population.

References


