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Horton's Disease in the Internal Medicine Department of the Donka University Hospital (Guinea-Conakry): Epidemiological, Clinical, Therapeutic and Evolutionary Profile

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Abstract

Introduction: Horton's disease, also called giant cell arteritis (GCA), is an inflammatory arteritis affecting large and medium caliber arteries with predilection for the cranial branches of the arteries originating of the aortic arch and in particular the external carotid, as well as for ophthalmic arteries. It was first reported in 1890 by Hutchinson. It generally concerns the elderly with a slight female predominance, its incidence is estimated at 17.8/100,000 and 46/100,000, respectively, among subjects over 50 and 70 years old. The typical form realizes a symptomatic tripod associating headaches, more or less febrile alteration of the general state and rheumatic manifestations. THE criteria for classification of MH were determined in 1990 when of the consensus conference of the American College of Rheumatology. Temporal artery biopsy remains an essential diagnostic test. The objective of this study was to determine the prevalence of Horton's disease in the internal medicine department of the Donka University Hospital (Guinea-Conakry). **Materials and Methods:** this was a retrospective study of the records of patients monitored and treated for Horton's disease in the internal medicine department of the Donka University Hospital (Guinea-Conakry) between January 2017 and December 2022. The diagnosis of Horton's disease was made according to the ACR criteria. **Results:** we included 6 patients (4 women and 2 men, is a sex ratio of 0.5). The average age of patients at diagnosis was 70 years. The main clinical manifestations found were headaches, especially temporal headaches in all patients (6 cases or 100%), followed by deterioration of general condition in 4 patients (66.66%), pseudo-polyarthritis rheumatica in 3 patients (50%) and prolonged fever in 3 patients (50%). Two

patients (33.33%) had uveitis, scalp hyperesthesia and jaw claudication. Of the four patients who had a biopsy of the temporal artery, the appearance of giant cell arteritis was found in 100% of cases. Therapeutically, boluses of solumedrol (500-1000 mg/day for 3 days) were administered and the evolution was favorable in 4 patients (66.66%). **Conclusion:** Horton's disease is a less diagnosed pathology due to atypical signs, temporal headaches can be the signs suggesting the disease. Eye damage is the serious complication of this condition. Biopsy of the temporal artery helps confirm the diagnosis by highlightingan infiltrationgiant cell granulomatous. Management uses corticosteroid therapy.

Subject Areas

Epidemiology

Keywords

Horton's Disease, Donka, Aspects, Epidemio-Clinical, Therapeutic

1. Introduction

Horton's disease, also called giant cell arteritis (GCA), is an inflammatory arteritisaffecting large and medium-sized arteries with a predilection for the cranial branches of the arteries originating from the aortic arch, particularly the external carotid, as well as for the arteries supplying the ophthalmology, it is the most common vasculitis but is severe in terms of morbidity, particularly due to the ophthalmologic, neurological, cardiac and aortic vascular complications it causes [1]-[3]. Horton's disease was first reported in 1890 by Hutchinson. As early as the 11th century, Ali Ibn Isa, an oculist in Baghdad, described a "heat and inflammation of the temporal muscles" accompanied by migraine and potentially leading to blindness. In 1932, Horton *et al.* described it histopathologically at the Mayo Clinic in the United States. The classification criteria for MH were determined in 1990 at the consensus conference of the American College of Rheumatology [3] [4]. It generally affects the elderly with a slight female predominance; its incidence is estimated at 17.8/100,000 and 46/100,000, respectively, in subjects over 50 and 70 years of age [1] [5]. The typical form creates a symptomatic tripod combining headaches, more or less febrile alteration of the general condition and rheumatic manifestations. Each of the elements of this tripod can however be isolated, making the diagnosis more difficult. Headaches (60% of cases) are typically temporal in location, uni- or bilateral, superficial burning type, often pulsatile, accentuated by the slightest touch but can also be frontal or occipital, in a third of cases, there is a claudication of the jaw, a quasi-pathognomonic sign of the condition. There is an impairment of the general condition with weight loss, low fever or sometimes high fever of 39˚C - 40.8˚C. The joint manifestations, which are observed in 40% to 50% of cases, typically present a picture of pseudopolyarthritis rhizomelic, characterized by painful stiffening of both shoulders, hindering and limiting the ges-

tures of daily life, often associated with neck pain. The pelvic girdle can also be affected with pain at the root of the thighs. On examination, the temporal artery may appear tortuous, indurated, but it is the painful nature of palpation which is very characteristic. Sometimes, the disease is revealed suddenly by its main complication which is blindness. In the course of Horton's disease, the inflammatory syndrome is clear, with a sedimentation rate usually higher than 50 and a very high CRP [1]. There is no specific antibody for Horton's disease; the complement profile, the search for rheumatoid factors, antinuclear antibodies and anti-neutrophil cytoplasmic antibodies (ANCA) are only of interest in the context of differential diagnoses. Indeed, ANCA negativity has a strong negative predictive value for the diagnosis of granulomatosis with polyangiitis. Similarly, the presence of rheumatoid factors points towards rheumatoid arthritis with rhizomelic onset [3].

Temporal artery biopsy remains an essential diagnostic test, but it is missed in about 30% of cases. The characteristic histological appearance is a granulomatous infiltration with giant cells which predominates within the media and ruptures the internal elastic lamina [1].

General corticosteroid therapy remains the standard treatment for Horton's disease. In case of ocular manifestations, corticosteroid therapy should be introduced immediately, possibly parenterally, associated with anticoagulant treatment. In the rare corticosteroid-resistant forms of the disease, an immunosuppressant such as methotrexate can be combined [1] [6]. The objective of this study was to determine the prevalence of Horton's disease in the internal medicine department of the Donka University Hospital (Guinea-Conakry).

2. Materials and Methods

This was a retrospective study concerning 06 patients where Horton's disease was diagnosed in the internal medicine department of the Donka University Hospital (Guinea-Conakry) between January 2017 and December 2022. The diagnosis of Horton's disease was made according to the ACR criteria. We studied the clinical, paraclinical, therapeutic and evolutionary characteristics of the patients. Our data were entered and analyzed using Epi-info software version 7.2.2.6. The data were collected anonymously based on information recorded in medical records and registers.

3. Results

We included 6 patients (4 women and 2 men, a sex ratio of 0.5). The average age of patients at diagnosis was 70 years. We excluded from the study files that did not contain the variables essential to the ACR criterion for Horton's disease.The main clinical manifestations found were headaches, especially temporal headaches, in all patients (6 cases or 100%), followed by deterioration of the general condition in 4 patients (66.66%), pseudo-polyarthritis rhizomelic in 3 patients (50%) and prolonged fever in 3 patients (50%). Two patients (33.33%) had uveitis, scalp hyperesthesia and jaw claudication.

Biologically, all patients had a non-specific biological inflammatory syndrome followed by iron deficiency anemia in three patients (50%). Of the four patients who underwent a temporal artery biopsy, the appearance of giant cell arteritis was found in 100% of cases. The other two patients, given a clinical picture highly suggestive of Horton's disease, underwent Doppler ultrasound of the supra-aortic trunks showing the presence of a hypoechoic halo.

Therapeutically, boluses of solumedrol (500 - 1000 mg/day for 3 days) were administered to the 2 patients with ocular involvement followed by oral corticosteroid therapy with Prednisone at a dose of 1 mg/kg, including those who had not received a bolus.

The outcome was favorable in 4 patients (66.66%). We observed one recurrence and one case of corticosteroid dependence.

4. Discussion

In our study, the small sample size and the fact that the study was conducted at a single site constitute our limitations.

Among the files analyzed between January 2017 and December 2022, we obtained 6 cases of Horton's disease, including 4 women and 2 men, *i.e.* a sex ratio of 0.5. This observation has been identified in several studies. Ghayad E *et al.* [7] reported a mean age of 73.7 ± 2.3 years and a sex ratio (F/M) of 1.6. Khedher M *et al.* [8] found 5 women and a single man whose mean age was 67.6 years, with extremes ranging from 55 to 77 years.

The main clinical manifestations found were headaches, especially temporal headaches, in all patients (6 cases or 100%), followed by deterioration of general condition in 4 patients (66.66%), pseudopolyarthritis rheumatica in 3 patients (50%) and prolonged fever in 3 patients (50%). Two patients (33.33%) had uveitis, hyperesthesia of the scalp and jaw claudication. Ghayad E *et al.* [7] reported recent headaches (71%), weight loss (53%), fever (37%) and jaw claudication (34.5%), ophthalmological involvement 31%, pseudopolyarthritis rheumatica 39%. Khedher M *et al.* [8] temporal headaches were reported in all patients. Scalp hyperesthesia was noted in 4 patients, intermittent jaw claudication in 3 patients.

Biologically, all patients had a non-specific biological inflammatory syndrome followed by iron deficiency anemia in three patients (50%). Ghayad E *et al.* [7] noted an inflammatory syndrome in more than 90% of patients, normocytic anemia in 79% of cases. Planchette *et al.* [9] in their study showed a biological inflammatory syndrome—CRP at 93 mg/L, ESR at the 1st hour at 93 mm.

Of the four patients who underwent a temporal artery biopsy, giant cell arteritis was present in 100% of cases. According to literature data, temporal artery biopsy can confirm the disease.

The other two benefited from a Doppler ultrasound of the supra-aortic trunks, showing the presence of a hypoechoic halo, given a clinical picture very suggestive of Horton's disease.

Therapeutically, boluses of solumedrol (500 - 1000 mg/day for 3 days) were administered to the 2 patients with ocular involvement followed by oral corticosteroid therapy with Prednisone at a dose of 1 mg/kg, including those who had not received a bolus. for 18 months. This result is consistent with literature data.

The outcome was favorable in 4 patients (66.66%). We observed a recurrence (reappearance) of signsand a case of corticosteroid dependence (disease relapses as soon as corticosteroids are reduced or stopped). Fekih Y *et al.* [10] had found a favorable evolution and there was no flare-up of the disease after an average follow-up of 7 years.

5. Conclusion

Horton's disease is a less diagnosed pathology in our regions because of atypical signs, temporal headaches can be the signs suggesting the disease. Ocular involvement is the serious complication of this condition. A biopsy of the temporal artery can confirm the diagnosis by highlightingan infiltrationgiant cell granulomatous disease. Management involves corticosteroid therapy.

Conflicts of Interest

The authors declare no conflicts of interest.

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