Vogt-Koyanagi-Harada syndrome: evaluation of the disease phase in which patients receive the first specialized attendance

Síndrome de Vogt-Koyanagi-Harada: Avaliação da fase da doença na qual os pacientes recebem o primeiro atendimento em serviço especializado

Guilherme da Silva Ferreira da Costa[1], Ana Luiza Biancardi[2], Carolina de Aquino Xavier[1], Giovanna Provenzano[1], Haroldo Vieira de Moraes Júnior[3]

Abstract

Objective: *To evaluate in which phase of Vogt-Koyanagi-Harada (VKH) syndrome the patients receive the first attendance in specialized service.* ***Methods:*** *A retrospective study was conduted to evaluate medical records of 14 patients with VKH in the Clementino Fraga Filho University Hospital of the Federal University of Rio de Janeiro from January 2014 to March 2017. In this analysis, gender, age, stage of disease and visual acuity of these patients with at least probable VKH were recorded.* ***Results:*** *Of these patients, 78.5% were female and 21.5% male and the median age was 34 years. We observed that 35.4% of the patients had the disease still in the uveitic phase and that 78.5% of these patients had visual acuity equal to or worse than 0.05.* ***Conclusion:*** *There is a delay in the admission of these patients to a specialized sector, thus affecting directly the treatment and visual prognosis.*

Keywords: *Uveomeningoencephalitic syndrome; Uveitis; Panuveitis/epidemiology; Panuveitis/prevention & control; Vision disorders/prevention & control*

Resumo

Objetivo: Avaliar em qual fase da síndrome de Vogt-Koyanagi-Harada (SVKH) os pacientes recebem o primeiro atendimento em serviço especializado. **Métodos:** Foram analisados prontuários de 14 pacientes atendidos no Setor de Uveítes do Hospital Universitário Clementino Fraga Filho da UFRJ no período de janeiro de 2014 a março de 2017. Nesta análise, foram observados o sexo, a idade, a fase da doença e a acuidade visual destes pacientes com ao menos doença provável da SVKH. **Resultados:** Observamos que 35,4% dos pacientes apresentavam a doença ainda na fase uveítica e que 78,5% destes pacientes apresentava acuidade visual igual ou pior que 0,05. Destes pacientes, 78,5% eram do sexo feminino e 21,5% do sexo masculino e a mediana de idades foi de 34 anos. **Conclusão:** Os pacientes analisados obtiveram dificuldade em ter acesso precoce a um setor especializado, afetando assim, diretamente o tratamento e prognóstico visual.

Descritores: Síndrome uveomeningoencefálica; Uveíte; Panuveíte/epidemiologia; Panuveíte/ prevenção & controle; Transtornos da visão/ prevenção & controle

[1] Residency Program, Ophthalmology Service, Hospital Universitário Clementino Fraga Filho, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.
[2] Post-graduation Program in Surgical Sciences, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.
[3] Department of Ophthalmology and Otorhinolaryngology, Medicine School, Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

Study carried out at Hospital Universitário Clementino Fraga Filho – Universidade Federal do Rio de Janeiro, Rio de Janeiro, RJ, Brazil.

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Introduction

Vogt-Koyanagi-Harada Syndrome (VKHS) is a granulomatous systemic disease that targets organs and tissues rich in melanocytes, such as the eye, inner ear, meninges, skin, and hair.[1] Also known as the uveomeningoencephalic syndrome, it presents a severe bilateral panuveitis associated to serous retinal detachment as the main ocular involvement. The VKHS is divided into four distinct phases: prodromal, preceding ocular inflammation in 3 to 5 days, lasting for 1 to 2 weeks,[2, 3] which mimics a viral infection and presents fever, headache, orbital pain, photophobia, tinnitus, meningism, and cerebrospinal fluid pleocytosis; uveitic (acute), which begins 3 to 5 days after the prodromal phase and lasts weeks to months, in which there is diffuse inflammation of the choroid, responsible for the subsequent accumulation of subretinal fluid characteristic of this stage of the disease, and variable extent of inflammation, usually granulomatous, to the anterior segment; the convalescence phase goes on gradually with the regression of inflammation and depigmentation of the uvea and skin; this quiescent stage is interrupted in 17 to 73% of cases by the chronic phase of the disease, presenting mainly as recurrent anterior uveitis.[1- 5] The diagnosis is eminently clinical, and due to the wide variation in the clinical presentation of the disease, the International Nomenclature Committee proposed in 2001,[6] diagnostic criteria categorizing patients into complete, incomplete or probable VKHS (Chart 1). The prognosis of VKHS is considered good, with 60% of patients achieving visual acuity (VA) better than 0.5, and is directly related to early diagnosis and treatment.[1, 5, 7]

Objective

Analyze at which stage of the disease patients with Vogt-Koyanagi-Harada Syndrome (VKHS) received the first care in a specialized unit.

Methods

A retrospective, cross-sectional, observational study was carried out analyzing 14 medical records of patients with VKHS treated in the uveitis sector of Hospital Universitário Clementino Fraga Filho (HUCFF) at Universidade Federal do Rio de Janeiro (UFRJ) from January 2014 to March 2017. This study included patients with at least one probable disease according to the criteria established at the first international workshop on Vogt-Koyanagi-Harada disease. Patients with trauma or ocular surgeries preceding uveitis with clinical or laboratory evidences suggestive of other ocular diseases or even who did not present bilateral ocular involvement characteristic of the disease were not included in this study.

Patients who complied with the inclusion criteria were evaluated regarding the first appointment, age, gender, visual acuity, and disease stage at the time of the first appointment.

The visual acuity was divided into 3 groups for the sake of evaluation: vision better than 0.3, between 0.3 and 0.05, and equal to or worse than 0.05.

The disease was divided into the prodromal, uveitic, convalescent or chronic phases. The patients were divided into stages according to the history and clinical examination associated to the complementary exams requested according to each case

Chart 1
Revised diagnostic criteria for Vogt-Koyanagi-Harada Syndrome. The complete form consists in the presence of criteria 1 to 5. In incomplete disease, criteria 1 to 3 and 4 or 5 must be present. In the probable disease, we have isolated ocular disease with the presence of only criteria 1 to 3. [6]

1. No surgery and/or ocular trauma preceding uveitis
2. Absence of clinical signs and/or laboratory tests suggestive of other eye disease
3. Bilateral ocular involvement with the following characteristics (criterion a or b mandatory, depending on the stage of the disease):
   a. Early Manifestations:
   - Evidence of diffuse choroiditis (with or without anterior uveitis, vitreous inflammatory reaction, or optic disc hyperemia) that may manifest as focal areas of subretinal fluid or serous bullous retinal detachment.
   - If funduscopic changes are not present then must be present:
     I. In fluorescein angiography: focal areas of choroidal perfusion delay, multifocal areas of dye extravasation, extensive areas of hyperfluorescence in placoid form, accumulation of fluid in the subretinal space, and extravasation by the optic nerve;
     II. In ultrasonography: diffuse thickening of the choroid without evidence of posterior scleritis.

   b. Late Manifestations:
   I. History suggestive of previous disease of findings corresponding to the criteria of early manifestations and criteria II and III below, or multiple signs of III below:
   II. Ocular depigmentation: Sunset-glow fundus or Sugiura Sign
   III. Other ocular signs as: Nummular depigmented scars of chorioretin, or accumulation and/or migration of the retinal pigmented epithelium, or recurrent or chronic anterior uveitis
4. Neurological / auditory findings (may be absent at time of examination):
   - Meningism (malaise, fever, headache, nausea, abdominal pain, neck and spine stiffness, or a combination of these factors, and headache alone should not be considered), or
   - Tinnitus, or
   - Pleocytosis of the cerebrospinal fluid
5. Skin findings (do not precede the onset of central nervous or ocular system changes):
   - Alopecia, or
   - Poliosis, or
   -Vitiligo

Results

Table 1
Results found in the evaluation of the 14 patients studied, separated by gender, age, stage of disease and visual acuity

Gender	Age	Stage	VA
F	28	Uveitic	<0.05 BE
F	42	Convalescent	>0.3 BE
F	54	Chronic	<0.05 BE
M	30	Uveitic	0.3 – 0,05 BE
F	40	Uveitic	RE: >0.3; LE: <0,05
F	56	Chronic	<0.05 BE
F	41	Convalescent	>0.3 BE
M	32	Convalescent	>0.3 BE
F	28	Convalescent	>0.3 BE
F	36	Convalescent	>0.3 BE
F	27	Chronic	RE: 0.3 – 0.05; LE: >0.3
F	43	Uveitic	0.3 – 0,05 BE
M	7	Uveitic	0.3 – 0.05 BE
M	16	Convalescent	0.3 – 0.05 BE

VA: Visual acuity; F: Female; M: Male; RE: Right eye; LE: Left eye; BE: Both eyes

Table 1 presents the result of the individual analysis of each medical record analyzed.

Of the 14 patients, 11 (78.5%) were female, and 3 (21.5%) were male, with an average age of 34 years (7 to 56 years).

Five (35.7%) patients received first care during the uveitic phase of the disease, 6 (42.8%) patients were in the convalescence phase, and 3 (21.5%) in the chronic phase.

Regarding visual acuity, 11 (39%) eyes had vision equal to or worse than 0.05, other 5 (18%) eyes had vision between 0.3 and 0.05, and 12 (43%) eyes had vision than better 0.3.

Discussion

VKHS accounts for 2 to 13% of specialized service care in Brazil. [8-10] Females are most commonly affected, at a rate of 2 to 1 in relation to males, and the most affected age group is between the third and sixth decade of life. [1, 2] Population similar to the one described was found in this study, with a predominance of women and with an average age of 34 years.

During the prodromal phase, the systemic character of the disease may lead the patient not to initially seek an ophthalmologist. At this stage the lack of knowledge of the disease and the diagnostic difficulty are factors that make it difficult to start early treatment.

Although visual impairment and other ophthalmologic symptoms are characteristic of the uveitic phase, we can observe in the present study that more than half of the patients at this stage did not have access to a specialized ophthalmological service.

Factors related to the disease and its complications, such as worse visual acuity at the onset of the disease, in a more advanced stage, a greater number of recurrences with extraocular manifestations, besides associated synechiae, glaucoma and cataract, are related to a worse visual prognosis. [11-13]

Patient-related factors such as the onset of the condition in youngsters (13, 14) and presence of the HLA-DRB1*0405 gene,[4, 15] in addition to treatment-related factors such as delay in onset,[11, 12] duration of treatment less than 9 months[12] and use of doses of corticosteroids that do not allow the effective control of inflammation[14, 16] would also be related to a worse prognosis.

Among the aforementioned factors, those modifiable in order to obtain a better final prognosis are related to a diagnosis and onset of early treatment, in addition to a correct therapeutic approach.

Conclusion

As it is difficult for the patient with VKHS to be evaluated by an ophthalmologist during the prodromal phase of the disease, the patient should be diagnosed still in the uveitic phase, since the early treatment interferes with the prognosis.

Our results demonstrate a delay in the reference of basic care to tertiary care. The diagnostic difficulties of an unusual disease and of reference in the Brazilian Single Health System are hypotheses to justify the result found. Therefore, it is imperative to improve care in the basic unit, in order to preserve the visual function and avoid complications in a young and economically active population, assuring the quality of life of these patients and a lower socioeconomic impact for society.

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Corresponding author:
Guilherme da Silva Ferreira da Costa
Rua Rodolpho Paulo Rocco, 255 - Ilha do Fundão, Rio de Janeiro - RJ, 21941-590Phone No.: (21) 3938-6001
E-mail: guilherme_costa_@hotmail.com