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Harada's Disease (Vogt-Koyanagi-Harada Syndrome; VKH Syndrome)

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ABSTRACT. We studied the course and outcome of 44 patients with Harada's disease (17 males and 27 females) who were treated in the Department of Ophthalmology of Kawasaki Hospital, an affiliated hospital of Kawasaki Medical School, between April 1980 and March 1990.

The age at onset ranged from 14 to 77 years with the mean age±SD being 46.5±15.6 years. Thus the disease was frequent among the elderly.

The posterior and optic types of the disease were most frequently found in our patients.

As extraocular symptoms, perceptive deafness and an increase in the cell count of the cerebrospinal fluid were frequently observed, and these were important factors in the diagnosis of the disease.

Systemic administration of steroids was the main treatment, with immunosuppressive agents being administereted to patiens with the delayed type of the disease.

As for the visual prognosis, the final corrected visual acuity was 1.0 in 79% of the patients.

As eye complications, cataracts and glaucoma were frequently noted, and various other lesions of the fundus were also observed with increasing age. Patients with the delayed type of the disease accounted for 34.1% of the patients studied.

Key words : Harada's disease — clinical picture — treatment — complications

Vogt-Koyanagi-Harada syndrome (VKH syndrome) or Harada's disease is an important eye disease and is one of the three major causes of uveitis in Japan; the others being Behçet's disease and sarcoidosis.

Harada's disease is a systemic illness which affects only tissues containing pigment cells derived from the neural tube, i.e., it is a melanocyte-specific autoimmune disease.

Systemic administration of steroids generally produces a favorable outcome, but some patients do not respond to steroid therapy and suffer from repeated recurrences.

A statistical analysis was undertaken of patients with this disease who were treated at the Department of Ophthalmology of Kawasaki Hospital between April 1980 and March 1990 inclusive, and their course and prognosis after treatment were studied.

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I. Patients

There were 44 patients (17 males and 27 females).

The incidence by age and sex is shown in Fig. 1. The patients ranged in age from 14 to 77 years (mean±SD : 46.5±15.6). The peak incidence was observed between 41 and 50 years in males, while there were two peaks between 31 and 40 years and between 51 and 60 years in females. The ratio of the incidence in males to that in females was 1 : 1.6, so the incidence was slightly higher among females.

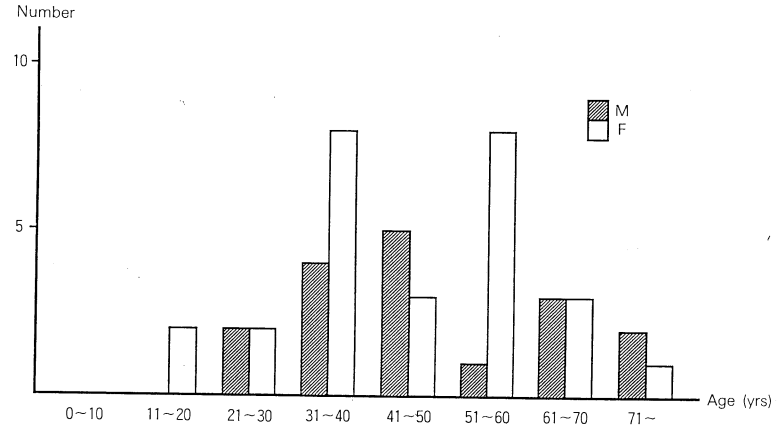

Fig. 1. Distribution of patients' age

II. Results

1. Disease type

The posterior type (choroidal type) of Harada's disease was the most frequently encountered type, accounting for 43.2%. This was followed by the optic disc type (20.5%), and the anterior type (13.6%), which was the least frequently seen (Table 1).

TABLE 1. Classification of ocular symptoms

Types	%
posterior type (choroidal type)	43.2
optic disc type	20.5
anterior type (iridocyclitic type)	13.6
mixed type	22.7

2. Initial symptoms

Eye symptoms included rapid loss of visual acuity in both eyes, muscae volitantes and micropsia. Common initial extraocular symptoms were headache, deafness, vertigo and cold-like symptoms (Table 2).

3. Extraocular symptoms

Perceptive deafness was found in 12 of the 14 patients (85.7%) who underwent audiometry, and an increase in the cell count of the cerebrospinal fluid to 100/3 or more was found in five of six patients tested (83.3%). These were

TABLE 2. Initial extraocular symptoms

Symptoms	%
headache	31.8
deafness	27.3
dizziness	18.2
common cold	13.6
nausea, vomiting	9.1
vertigo	4.5

TABLE 3. Extraocular symptoms

Symptoms	%
pleocytosis in CSF	83.3
sensory deafness	85.7
dizziness	18.2
poliosis	15.5
vitiligo	2.3

diagnostically important extraocular symptoms.

4. Treatment

Seventeen patients were treated at an ambulatory clinic, and the remaining 27 were admitted to the hospital. Nine were hospitalized on two or more occasions.

Intravenous infusions of Predonine were given to 12 patients, infusion of dexamethasone to seven, pulse therapy with Solu-medrol to three and oral steroids to nine. The initial dose of steroids was unknown in two cases and six patients did not receive steroids.

The dose of steroids administered was equivalent to 3,287.4 mg of Predonine on the average. As immunosuppressive agents, Endoxan was administered to two patients, and Bredinine and cyclosporin were given to one patient each.

5. Visual prognosis

The outcome for visual acuity is shown in Fig. 2. The final corrected visual acuity was 1.0 or less in 18 eyes (21%), and 0.1 or less in four eyes (9%) (Fig. 2).

The final visual acuity was reduced in 16 eyes (18.6%) when compared with that at the first visit.

6. Ocular complications

The most frequent ocular complications were cataracts and glaucoma. The cause of the reduction of the final visual acuity to 0.1 or less was macular degeneration. Various other fundus lesions were found with increasing age, i.e., retinal hemorrhage and retinal branch vein occlusion (Table 4).

Five patients (11.6%) did not have a typical sunsetglory-like fundus.

Patients in whom episodes of inflammation repeatedly occurred for over six months after the onset were considered to have the delayed type of the disease, and accounted for 34.1% of all cases (13 patients). The dose of steroids

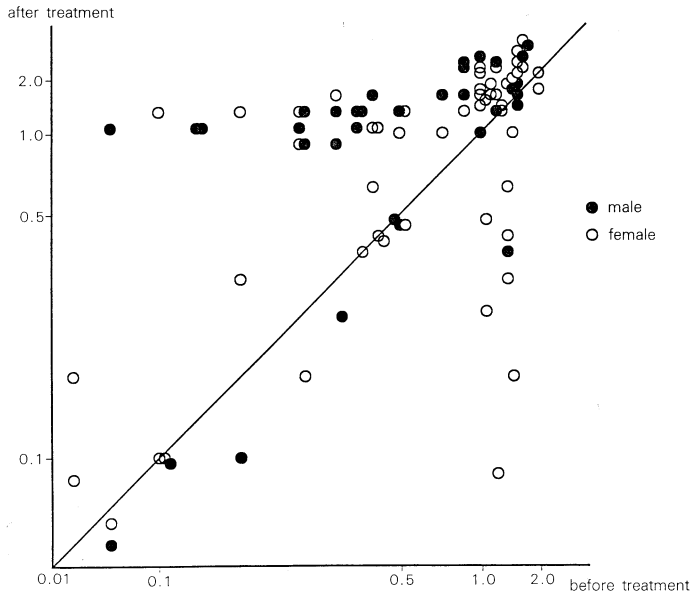

Fig. 2. Visual acuity before and after treatment

TABLE 4. Ocular complications

Number of eyes		%
cataract	38	43.2
(operated)	15	17.0
glaucoma	7	8.0
(operated)	1	0.1
macular degeneration	6	6.8
vitreous hemorrhage	2	2.3
retinal hemorrhage	8	9.1
neovascular macropathy	1	2.3
new vessel formation of optic nerve head	2	2.3
retinal branch vein occlusion	1	0.1

was 4,025.3 mg on the average among these patients, while it was 2,760.2 mg among cured patients. There was no significant difference between the two groups.

III. Discussion

Harada's disease is not very frequently encountered in Caucasians, but it is particularly frequent in the Japanese population, where it is one of the three major causes of uveitis along with Behçet's disease and sarcoidosis.

Harada's disease has had a fairly constant rate of incidence over the last 20 years.[1)]

We have previously reported on 46 patients with the disease encountered in the 10 years from January 1967 to December 1976.

The mean age at onset was 34.9 years in our previous report, but was 46.5 years in the present series, and thus the onset of the disease is increasing

in the elderly.

Various other eye lesions that develop with increasing age can complicate the picture in such patients. The final visual acuity decreased in 21.7% and 18.6% of the patients in the previous and present reports, respectively. In addition, the acuity decreased to 0.1 or less in 15.2% and 9% of the cases in the previous and present reports, respectively. This indicates that some progress has been made in the treatment of this disease.[2]

Diagnostic criteria for Harada's disease have been established, and the disease should be distinguished from other conditions with similar findings.[3]

The disease is classified into three categories by taking into account the clinical course and the treatment strategy.[4]

Treatment mainly relies on the systemic administration of steroids, but there are patients with the delayed type of the disease who develop repeated recurrences of inflammation over a six-month period or longer. Such patients account for about 25 to 35% of those treated,[5] and accounted for 34.1% in the present series.

We have previously reported patients with the disease who had a poor outcome, but this might have resulted from inadequate treatment with steroids.[6]

Immunosuppressive agents were given to four chronic cases and a good response was achieved.

The prognosis of Harada's disease is generally good, but it should be regarded with caution because there are some patients with a relapsing and/or chronic course.

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