Title

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Outcomes of Vogt-Koyanagi-Harada disease: a subanalysis from a randomized clinical trial of antimetabolite therapies

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Abstract

Purpose—To report outcomes of Vogt-Koyanagi-Harada (VKH) disease from a clinical trial of antimetabolite therapies.

Design—Subanalysis from an observer-masked randomized clinical trial for non-infectious intermediate, posterior, and pan- uveitis.

Methods

Setting: clinical practice at Aravind Eye Hospitals, India

Patient Population: Forty-three of 80 patients enrolled (54%) diagnosed with VKH.

Intervention: Patients were randomized to either 25mg oral methotrexate weekly or 1g mycophenolate mofetil twice daily, with a corticosteroid taper.

Main outcome measures: Primary outcome was corticosteroid-sparing control of inflammation at 5 and 6 months. Secondary outcomes included visual acuity, central subfield thickness, and adverse events. Patients were categorized as acute (diagnosis ≤3 months prior to enrollment) or chronic (diagnosis >3 months prior to enrollment).

Results—Twenty-seven patients were randomized to methotrexate and 16 to mycophenolate mofetil; 30 had acute VKH. The odds of achieving corticosteroid-sparing control of inflammation

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with methotrexate were 2.5 times (95% CI: 0.6, 9.8; P=0.20) the odds with mycophenolate mofetil, a difference which was not statistically significant. The average improvement in visual acuity was 12.5 Early Treatment Diabetic Retinopathy Study (ETDRS) letters. On average, visual acuity for patients with acute VKH improved by 14 more ETDRS letters than those with chronic VKH (P<0.001), but there was no difference in corticosteroid-sparing control of inflammation (P=0.99). All 26 eyes with a serous retinal detachment at baseline resolved, and 88% achieved corticosteroid-sparing control of inflammation.

Conclusions—The majority of patients treated with antimetabolites and corticosteroids were able to achieve corticosteroid-sparing control of inflammation by 6 months. Although patients with acute VKH gained more visual improvement than those with chronic VKH, this did not correspond with a higher rate of controlled inflammation.

INTRODUCTION

Vogt-Koyanagi-Harada (VKH) disease is a bilateral granulomatous panuveitis often associated with neurologic findings, such as tinnitus, encephalopathy, and meningeal involvement. The acute uveitic phase is typically characterized by exudative retinal detachments (also known as serous retinal detachments), optic disc hyperemia, and choroidal lesions.[1–3] If not adequately treated, VKH disease can progress to a chronic anterior uveitis often accompanied by a “sunset glow fundus” and eventually develop sequelae such as cataract, glaucoma, subretinal neovascularization, and subretinal fibrosis.[1–6] The first step in treatment is to suppress intraocular inflammation with high-dose systemic corticosteroids followed by a slow taper over 6 months.[1,2,4–7] While appropriate corticosteroid therapy may adequately control the condition in some cases, recurrent and chronic disease are very common.[1,2,8–10]

Corticosteroid-sparing immunosuppressive agents have been suggested to be beneficial in the treatment of VKH disease.[1,2,7,9–23] A number of observational studies on azathioprine, cyclophosphamide, cyclosporine, methotrexate, and mycophenolate mofetil have demonstrated good clinical results.[9–20] Only a few small case series have demonstrated efficacy with biologics, including infliximab and adalimumab.[21–23] Some studies suggest that using immunosuppressive therapy (IMT) along with corticosteroids results in better visual outcomes compared to using corticosteroids as monotherapy or with delayed addition of immunosuppressants.[16,17] Overall, VKH studies have had varied results, and prospective studies comparing IMT are incredibly scarce. There are several drawbacks to retrospective and non-randomized prospective studies, such as indication bias. Randomized clinical trials with masked outcome assessments overcome these issues. Here we present a subanalysis of patients with VKH treated with either oral methotrexate or mycophenolate mofetil and corticosteroid taper from a randomized clinical trial for noninfectious uveitis.

METHODS

This subanalysis reports outcomes of patients with VKH disease from a randomized clinical trial comparing methotrexate and mycophenolate mofetil as corticosteroid-sparing treatments for non-infectious intermediate, posterior and pan- uveitis (ClinicalTrials.gov registration No. NCT01232920). Patients were enrolled at Aravind Eye Hospitals in Madurai

and Coimbatore, India between October 2011 and June 2012, and followed monthly for 6 months. Institutional Review Board/Ethics Committee approval was obtained at the University of California, San Francisco and at Aravind Eye Hospitals. All patients provided written informed consent. Details of the trial, including enrollment criteria and results, have been previously published. [24] Patients were randomized to receive either 25 mg oral methotrexate weekly or 1 g mycophenolate mofetil twice daily. Patients were required to start on >15 mg of systemic corticosteroids and corticosteroids were tapered according to guidelines[25] with the goal of reducing to ≤10 mg daily by the 5-month visit. Oral corticosteroids were allowed to be tapered faster if there was intolerability or for other medical reasons. The diagnosis of VKH was based on the Revised International Diagnostic Criteria with all patients at a minimum fulfilling the criteria for 'probable' VKH disease.[26]

Assessments

Clinical eye exams, visual acuity measurements, and optical coherence tomography (OCT) scans were conducted every month for up to 6 months. Study ophthalmologists, visual acuity examiners, and OCT operators were masked. Anterior chamber cells were measured according to the Standardization of Uveitis Nomenclature (SUN) guidelines.[27] Vitreous cells were assessed using a scale derived from the Multicenter Uveitis Steroid Treatment Trial. [28] Vitreous haze was graded by the standardized National Eye Institute scoring system.[29] Study-certified masked refractionists measured best-corrected visual acuity using a logarithm of the minimum angle of resolution (logMAR) tumbling "E" chart at 4 meters.

Patients were defined as having acute VKH if they had been diagnosed ≤3 months prior to enrollment; chronic VKH was defined as having been diagnosed >3 months prior to enrollment. [3] Clinical features are classically used to differentiate between acute and chronic VKH,[1, 2] however no standard exists for using duration of disease for differentiating acute versus chronic VKH. Prior studies vary widely in how the duration for acute VKH is defined, ranging from 1 month to 6 months. [3,5,6,13,15]

Subretinal fluid was determined by the Stratus time domain OCT machine (Carl Zeiss Meditec Model 3000; software version 4.0) or the Cirrus HD-OCT (Carl Zeiss Meditec, Dublin, CA; software version 3.0). Presence of a serous retinal detachment (SRD) was defined by fluid separating the neurosensory retina from the retinal pigment epithelium on the OCT with a central subfield macular thickness >260 μm on the Stratus OCT3 machine.[30] Cirrus measurements were transformed to concord with Stratus OCT values.[31]

Outcome measures

The primary outcome of treatment success was corticosteroid-sparing control of inflammation in both eyes at the five and six month study visits. Corticosteroid-sparing control of inflammation was defined by the following: (1) ≤0.5+ anterior chamber cells, ≤0.5+ vitreous cells, ≤0.5+ vitreous haze, and no active retinal/choroidal lesions, (2) ≤10 mg of oral prednisone daily and ≤2 drops of prednisolone acetate 1% (or equivalent) a day, and (3) no declaration of treatment failure because of intolerability or safety concerns.

Secondary outcomes were visual acuity, central subfield thickness, time to resolution of SRD, characteristics of inflammation in treatment failures, and adverse events. Outcomes

were also analyzed based on duration of VKH (acute versus chronic). Visual acuity data were analyzed by change in logMAR and by number of Early Treatment Diabetic Retinopathy Study (ETDRS) letters read. Change in central subfield thickness was assessed by calculating the percent change in central subfield thickness at study completion compared to baseline. Resolution of SRD was defined as a reduction of macular thickness to ≤260 μm and absence of fluid on OCT. Foveal atrophy was defined as having a central subfield macular thickness <172 μm, or two standard deviations lower than the normative value.[25] All outcomes were pre-specified and measured at every study visit.

Statistical methods

Patients who were lost to follow-up were excluded from the analysis. Patient demographics were analyzed using Fisher's exact test. Eye clinical characteristics were analyzed using generalized estimating equations to account for clustering of eyes. Comparisons of outcomes were made using mixed effects linear and logistic regression models to adjust for within-person correlation between eyes. Mixed effects linear regression models adjusting for treatment arm were used to determine the association between change in retinal thickness and change in visual acuity. The Kaplan-Meier estimator was used to calculate time to resolution of SRDs, and the log rank test was used to compare time to resolution by treatment arm. Analyses were performed using Stata 13 (StataCorp LP, College Station, TX) and R (The R Project for Statistical Computing, Version 3.0.2, available at: http://www.r-project.org/).

RESULTS

Forty-three of the 80 patients (54%) enrolled in the trial carried a diagnosis of VKH. The median time since diagnosis was 37 days (interquartile range, IQR: 5, 678 days). Twenty-seven patients were randomized to methotrexate (63%) and 16 to mycophenolate mofetil (37%). Baseline demographics and clinical characteristics at enrollment are summarized in Table 1. The amount of corticosteroid exposure was similar between treatment arms (P=0.81). In the 90 days before enrollment, the median highest oral prednisone dose (or equivalent) was 53 mg (IQR: 30, 60 mg). At enrollment, the median oral prednisone dose was 40 mg (IQR: 30, 50 mg). Thirty-eight patients (88%), 23 on methotrexate and 15 on mycophenolate mofetil, completed the study and were included in the analysis.

Out of the 38 patients with VKH who completed the study, 25 (66%) met the definition of treatment success. In comparison, 48% of patients with a diagnosis other than VKH achieved treatment success in the trial. By medication assignment, 17 of 23 patients (74%) taking methotrexate were treatment successes compared to 8 of 15 patients (53%) taking mycophenolate mofetil; the odds of success with methotrexate were 2.5 times the odds with mycophenolate mofetil (95% CI: 0.6, 9.8; P=0.20). Of the 6 patients who failed on methotrexate treatment, 4 had uncontrolled inflammation and/or were unable to taper corticosteroids to ≤10 mg/day, and 2 failed because of intolerable side effects. Of the 7 patients who failed mycophenolate mofetil, 6 had uncontrolled inflammation and/or were unable to taper corticosteroids to ≤10 mg/day, and 1 failed because of intolerable side effects.

The median visual acuity at enrollment was 0.29 (IQR 0.02, 0.54) logMAR, or Snellen equivalent 20/40 (IQR 20/20, 20/70). At the final visit, the median visual acuity was 0 (IQR −0.08, 0.10) logMAR, Snellen equivalent 20/20 (IQR 20/17, 20/25), reflecting an average improvement of 12.5 ETDRS letters (95% CI: 3.1, 21.9 letters; P=0.009). Forty-five of 74 eyes (61%) had 20/20 or better vision at the end of the trial. However, 10 of these eyes (22%) were in 6 patients who were declared treatment failures due to the inability to taper corticosteroids or to control inflammation. There was no significant difference in improvement of visual acuity by treatment (mean difference: 0.1 ETDRS letters, 95% CI: −12.0, 12.1 letters; P=0.99). Fourteen eyes (19%) in 9 patients had 20/50 or worse vision at the end of the study, 2 eyes because of posterior subcapsular cataract and 12 eyes because of uncontrolled inflammation. Four eyes in 3 patients (5%) had 20/200 or worse vision. Of these patients, one patient (2 eyes) exited the study after two weeks because of intolerability to immunosuppressive therapy and did not continue with the study medication, one had a dense posterior subcapsular cataract, and the third had 2+ vitreous haze.

Outcomes of acute and chronic VKH

Thirty patients (70%) were classified as having acute VKH and 13 patients (30%) had chronic VKH. Table 2 displays baseline clinical characteristics of patients by acute and chronic disease. Nineteen patients with acute disease (63%) had evidence of SRDs on OCT at baseline; no patients with chronic disease presented with SRDs. Six patients with acute disease (20%) had evidence of foveal atrophy at baseline. Twenty-six of 30 patients with acute VKH (87%) and 12 of 13 patients with chronic VKH (92%) completed follow-up.

Seventeen patients with acute VKH (65%) and 8 patients with chronic VKH (67%) achieved treatment success (odds ratio acute versus chronic VKH: 0.94, 95% CI: 0.22, 4.01; P=0.94). Of note, 4 of the 9 patients (44%) with acute VKH who were treatment failures had been diagnosed with VKH less than 14 days prior to enrollment.

Patients with acute VKH had more improvement in visual acuity than patients with chronic VKH (Figure 1). On average, visual acuity at 6 months for patients with acute VKH improved by 14 more ETDRS letters than those with chronic VKH (95% CI: 7, 26 letters; P<0.001). Of patients with acute VKH, 36 eyes in 22 patients (69%) had 20/20 vision or better by the end of the study compared to 9 eyes in 6 patients (41%) with chronic VKH. Ten eyes in 4 patients (19%) with acute VKH had a final visual acuity of 20/50 or worse, with 1 patient who had a final visual acuity of 20/200 or worse in both eyes. This patient was declared a treatment failure after two weeks because of intolerability. Six eyes in 5 patients (27%) with chronic VKH had a final visual acuity of 20/50 or worse, with 2 eyes in 2 patients (9%) having a final visual acuity of 20/200 or worse (one had 2+ vitreous haze and the other had a dense posterior subcapsular cataract).

Serous retinal detachments

Of 19 patients who presented with SRDs on exam, all of whom had acute disease, 14 (74%) completed follow-up. Twelve of the 14 patients (86%) had bilateral SRDs. All 26 eyes (100%) achieved full resolution of the SRDs. No patients received regional corticosteroid injections during the course of the study. The median central subfield thickness in eyes with

SRDs was 369 (IQR: 314, 687) μm at baseline and 162 (IQR: 151, 170) μm at study completion (P<0.001). All but three eyes (88%) that had resolution of SRDs also achieved control of inflammation. After 30 days of treatment, 69% of patients with SRDs had returned to normal thickness (95% CI: 45%, 83%). By 90 days, 96% (95% CI: 74%, 99%) of patients had achieved resolution. There was no significant difference in time to resolution by treatment (P=0.25). For every 20% decrease in retinal thickness, the average improvement in visual acuity was 4.6 letters (95% CI: −1,10; P=0.10).

Adverse events

Adverse events reported by patients can be found in Supplemental Table 1. The most common reported side effects were headache (30%) and gastrointestinal symptoms, such as nausea (12%), vomiting (9%), or diarrhea (7%). Twenty-five percent of patients in the mycophenolate mofetil treatment arm reported fever for >12 hours, compared to 4% of patients in the methotrexate arm (P=0.02).

DISCUSSION

In this subanalysis of a randomized trial for non-infectious intermediate, posterior and pan-uveitis, we assessed outcomes from patients with VKH disease treated with antimetabolite therapy and corticosteroid taper for 6 months. Seventy percent of patients were categorized as having acute VKH, defined by VKH diagnosis made within 3 months prior to enrollment, and 30% were considered to have chronic VKH. Overall, 66% of patients achieved corticosteroid-sparing control of inflammation in both eyes; 74% of patients on methotrexate achieved control compared to 53% of patients on mycophenolate mofetil, however this difference was not statistically significant. Very few patients had tolerability issues with methotrexate and mycophenolate mofetil, and we did not find a difference in adverse events between the drugs.

Visual acuity has been the predominant outcome measure in the VKH literature, and after 6 months of treatment, 75% of eyes had visual acuity of 20/25 or better. Patients with acute VKH had superior visual outcomes compared to patients with chronic VKH; visual acuity in patients with acute VKH improved by nearly 3 more lines than patients with chronic VKH. Despite varying definitions of acute and chronic VKH in the literature, our results are consistent with those from two large retrospective studies which found that 70–80% of patients with acute VKH achieved a final visual acuity of 20/40 or better compared to only 40–56% of patients with chronic recurrent VKH.[5, 14]

Although improvement in visual acuity is important, it is only a proxy of treatment efficacy. For example, four patients achieved 20/20 vision in both eyes but failed treatment because of the inability to control inflammation or to taper corticosteroids. Patients with acute VKH had more visual improvement than patients with chronic VKH, but there was no difference in control of inflammation. The complete resolution of SRDs in patients with acute VKH may explain their greater improvement in visual acuity. In general, vision improved with a decrease in macular thickness, but the percent change in retinal thickness was not predictive of the exact improvement in number of letters read. This may be because the majority of patients returned to normal vision and thickness despite their baseline retinal thickness.

However, visual improvement and SRD resolution are not a complete measure of treatment efficacy as 12% of eyes with a SRD at enrollment still had persistent inflammation after 6 months of treatment despite resolution of the SRD.

Outcomes from patients taking IMT are scarce in the VKH literature and reported predominately from retrospective studies.[9–14,17–19] Corticosteroids have long been accepted as the mainstay of treatment, with oral administration shown to be as effective as intravenous administration for initial therapy.[6] Most VKH studies analyze heterogeneous immunosuppressants as one group. Two large retrospective studies from patients with VKH in China and Saudi Arabia provide details on clinical characteristics but limited information on outcomes by specific treatments. Patients in both studies were able to get control of inflammation on various treatments at their last visit. However presenting outcomes at last visit does not take into account how differing follow-up times across patients affects outcomes.[10,14]

There are a few prospective studies that have reported outcomes of specific IMT agents. In a cohort of Chilean patients with chronic VKH, 6 of 12 patients (50%) randomized to prednisone and azathioprine achieved control of inflammation (<10 mg/day of prednisone and Tyndall score of 0) compared to 7 of 9 patients (78%) randomized to prednisone and cyclosporine.[15] Our success rates with antimetabolites are comparable. In a non-randomized study of mycophenolate mofetil (2 g daily) for acute VKH, all 19 patients achieved corticosteroid-sparing control of inflammation,[16] whereas only 53% of our mycophenolate mofetil group achieved treatment success. Possible explanations for this discrepancy could be more severe or refractory disease in our study population, or the randomization and masking of observers reducing bias in our study. Another prospective observational study of azathioprine and oral corticosteroids for treatment of uveitis included 8 patients with VKH; all 8 achieved remission within 6 months.[20] Collectively, these studies suggest that corticosteroid therapy with adjunct IMT improves outcomes in most but not all patients with VKH. Most studies, including ours, use the same diagnostic criteria for inclusion,[26] but the reporting of outcome data is highly variable. Which specific immunosuppressive agents are most efficacious for the treatment of VKH still remains a question since comparing results across studies is extremely challenging given the heterogeneity in disease severity and duration, small sample sizes, and non-standardized regimens and endpoints. Larger prospective studies are needed to compare the clinical efficacy of various immunosuppressants.

There is some controversy on whether patients with acute VKH need IMT or can be treated with corticosteroids alone. One of the few prospective studies in the literature demonstrated that patients with acute VKH who initiated corticosteroid therapy with mycophenolate mofetil achieved better visual acuity than those treated with corticosteroids alone.[16] However, another study only found a benefit with early IMT in patients with chronic disease who responded poorly to corticosteroid therapy.[13] Our study is not able to directly address this question, however treatment with corticosteroids and IMT was insufficient for some patients with acute VKH; the success rate was 65%, nearly the same as those with chronic VKH. Furthermore, 4 of the 10 patients diagnosed ≤14 days before enrollment failed to achieve control of inflammation despite having initiated corticosteroids and IMT at disease

onset. Of note, patients in this South Indian population may have not received ophthalmologic care at onset of symptoms, resulting in a delayed diagnosis. Twenty percent of patients classified as acute had evidence of foveal atrophy on OCT at baseline, indicating that they likely had disease for longer than three months. Thus, it is possible our results underestimate treatment success in acute VKH.

The major strength of this analysis is that outcomes were defined a priori and collected prospectively by masked observers. The primary outcome of steroid-sparing control of inflammation had an explicit definition defined prior to enrollment. Additionally, treatment was randomized and dosing was standardized. The main study limitation is that this trial was not designed to study VKH, resulting in an unequal number of patients across treatments and insufficient power to detect a difference between drugs. Despite this, data from our prospective study provides clinically relevant information on how well these antimetabolites work for the treatment of VKH and the overall prognosis for these patients. Another limitation is that some uveitis specialists use advanced imaging techniques such as enhanced depth imaging OCT or indocyanine green angiography to monitor inflammation, but in this study only ultrasonography, fluorescein angiography, and OCT were available. However, in clinical care there is not a standard protocol on how to use imaging to assess activity of VKH. Our study was designed with a six month follow-up period, whereas most other VKH studies have a follow-up period of at least 12 months.[7,12–19] Although we are unable to comment on the rate of recurrence after six months or the development of ocular complications, such as fundus depigmentation and subretinal fibrosis, a six month period is still useful in determining the efficacy of initial treatment. Finally, our study took place in India, so there may be questions of generalizability to other patient populations. Currently it is not known whether ethnicity affects treatment outcomes.

In conclusion, for the majority of patients with VKH disease, antimetabolites with a corticosteroid taper were well-tolerated and effective for controlling inflammation and improving visual acuity. Antimetabolites are a reasonable option for limiting long-term exposure to systemic corticosteroids. Both patients with acute and chronic disease had similar success in controlling inflammation, but there was better visual improvement in patients with acute disease. Assessing inflammatory activity in addition to visual acuity yields a more comprehensive evaluation of treatment efficacy for patients with VKH disease.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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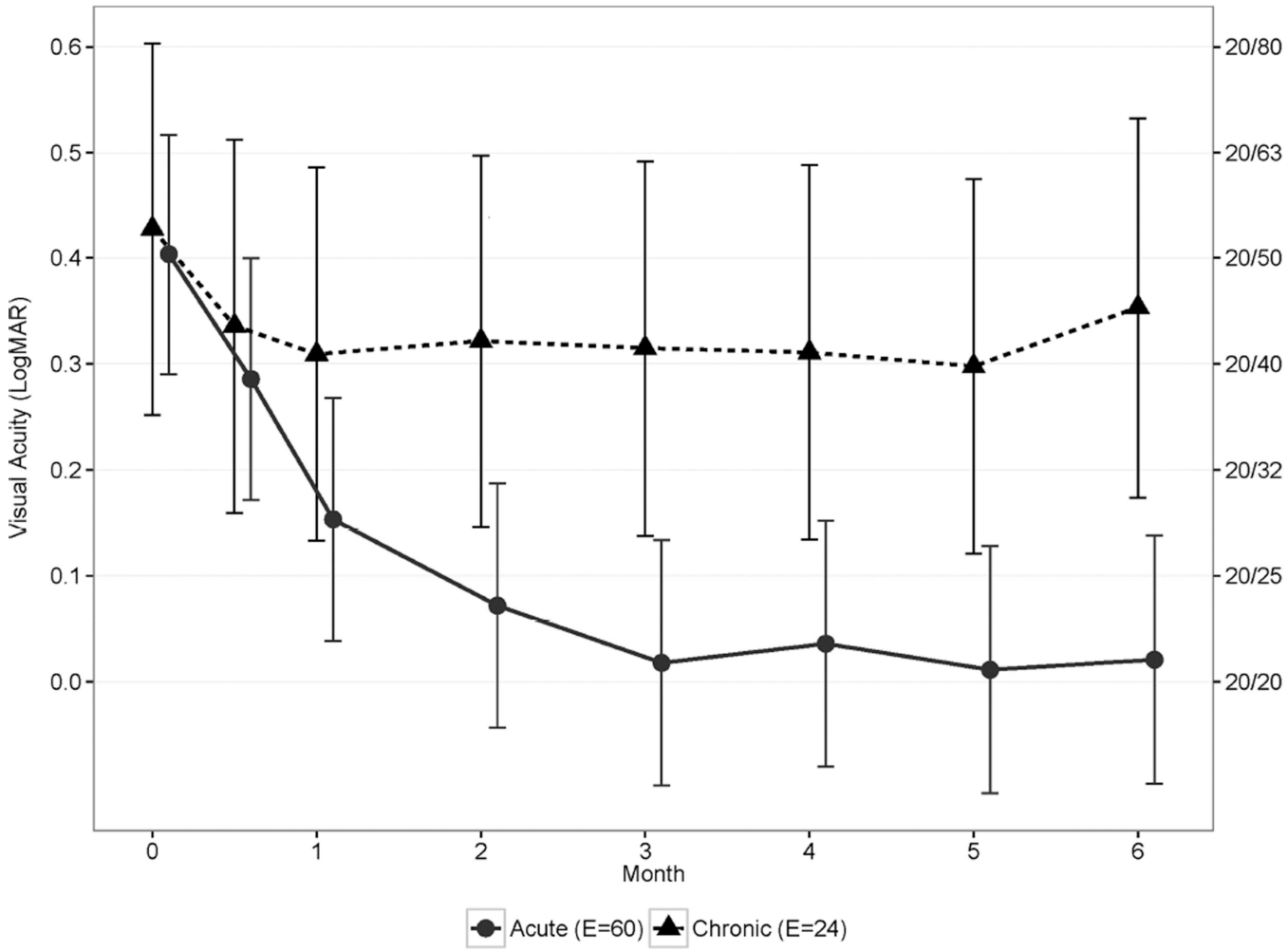

Figure 1.

Estimated mean visual acuity with 95% confidence interval for patients with acute or chronic Vogt-Koyanagi-Harada disease enrolled in a trial for non-infectious uveitis. Patients were randomized to receive either methotrexate or mycophenolate mofetil, with corticosteroid taper, and followed for 6 months. E = number of eyes

Table 1

Baseline demographics and clinical characteristics of patients with Vogt-Koyanagi-Harada disease enrolled in a randomized clinical trial comparing methotrexate to mycophenolate mofetil for the treatment of non-infectious uveitis

Patient demographics/clinical characteristics	**Methotrexate N (%) 27 (100)**	**Mycophenolate mofetil N (%) 16 (100)**	**p-value[a]**
Mean age years (SD)	37.2 (9.0)	40.4 (8.2)	0.25
Female	20 (74)	10 (63)	0.50
Median visual acuity logMAR (IQR)	0.30 (0.06–0.50)	0.26 (0–0.98)	0.76
Median days since diagnosis (IQR)	29 (6 – 1752)	42 (4 – 323)	0.66
Corticosteroids prednisone (mg)			
Median at Baseline (IQR)	40 (30–50)	40 (35–55)	0.54
Median highest dose in past 90 days (IQR)[b]	53 (30–60)	57 (40–60)	0.81
Location of inflammation at enrollment			0.28
Anterior chamber only	3 (11)	0 (0)	
Posterior segment (vitreous, retina, choroid)	24 (89)	16 (100)	
Increased retinal thickness (in at least one eye) from:			
Serous retinal detachment	12 (44)	8 (50)	0.76
Cystoid or diffuse macular edema	3 (11)	1 (6)	0.99
Highest level of inflammation past 90 days (either eye)			
Anterior Chamber Cells			0.95
0	4 (15)	4 (25)	
0.5+	5 (19)	4 (25)	
1+	8 (30)	3 (19)	
≥2+	10 (37)	6 (38)	
Vitreous haze			0.66
0	16 (59)	9 (56)	
0.5+	2 (7)	1 (6)	
1+	3 (11)	3 (19)	
≥2+	4 (15)	1 (6)	
Could not assess	2 (7)	2 (13)	
Anterior vitreous cells			0.74
0	11 (41)	6 (38)	
0.5+	1 (4)	2 (13)	
1+	4 (15)	4 (25)	
≥2+	9 (33)	4 (25)	
Could not assess	2 (7)	0 (0)	
Active retinal/choroidal lesions	21 (78)	16 (100)	0.14
Lens status			0.44
Normal or trivial opacities	21 (78)	13 (81)	
Cortical changes	0 (0)	1 (6)	
Posterior subcapsular	5 (19)	1 (6)	

Patient demographics/clinical characteristics	Methotrexate N (%) 27 (100)	Mycophenolate mofetil N (%) 16 (100)	p-value[a]
Pseudophakic	1 (4)	1 (6)	

[a] p-value from Fishers exact test for categorical data and Wilcoxon rank-sum test for continuous data.

[b] Corticosteroids in the past 90 days included oral, subcutaneous and intravenous and were adjusted to equivalent calculations of oral prednisone.

SD= standard deviation; IQR= interquartile range

Table 2

Baseline clinical characteristics of patients with acute versus chronic Vogt-Koyanagi-Harada (VKH) disease enrolled in a clinical trial comparing methotrexate to mycophenolate mofetil for non-infectious uveitis

Clinical characteristics	Acute VKH (≤3 months since diagnosis) N (%) 30 (100)	Chronic VKH (>3 months since diagnosis) N (%) 13 (100)	p-value
Duration of uveitis			
Median days since diagnosis (IQR)	12 (3, 39)	2240 (1752, 2581)	<0.001
Treatment assignment			
Methotrexate	18 (60)	9 (69)	0.74
Mycophenolate mofetil	12 (40)	4 (31)	
Corticosteroids (prednisone mg)			
Median at Baseline (IQR)	40 (40, 60)	30 (20, 40)	0.02
Median highest dose in past 90 days (IQR)[a]	60 (53, 60)	30 (20, 60)	0.01
Serous retinal detachment (either eye)[b]	19 (63)	0 (0)	0.04
Posterior synechiae (either eye)	2 (7)	5 (38)	0.001
Highest level of inflammation past 90 days (either eye)			
Anterior chamber cells			0.07
0	7 (23)	1 (8)	
0.5+	6 (20)	2 (15)	
1+	8 (27)	3 (23)	
≥2+	9 (30)	7 (54)	
Vitreous haze			0.006
0	22 (73)	3 (23)	
0.5+	1 (3)	2 (15)	
1+	4 (13)	2 (15)	
≥2+	2 (7)	3 (23)	
Could not assess	1 (3)	3 (23)	
Anterior vitreous cells			0.19
0	15 (50)	2 (15)	
0.5+	1 (3)	2 (15)	
1+	5 (17)	3 (23)	
≥2+	9 (30)	4 (31)	
Could not assess	0 (0)	2 (15)	
Active retinal or choroidal lesions	30 (100)	7 (54)	<0.001
Visual acuity at baseline	**E (%) 60 (100)**	**E (%) 24[c] (100)**	
Better than 20/50	36 (60)	15 (63)	0.56
20/50 to 20/200	18 (30)	5 (21)	
Worse than 20/200	6 (10)	4 (17)	

[a] Corticosteroids in the past 90 days included oral, subcutaneous and intravenous and were adjusted to equivalent calculations of oral prednisone.

[b] Unable to obtain OCT data for 3 patients with chronic disease.

[c] Two patients were monocular (eye was enucleated).

IQR= interquartile range; N=number of patients; E= number of eyes