Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2016; 4(3D):914-915 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublisher.com

Original Research Article

Prevalence of asteroid hyalosis

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Abstract: To evaluate the prevalence of asteroid hyalosis. We retrospectively analyzed 7,856 patients at our hospital for health screening during the 1-year period. All patients, including 4,421 men and 3,435 women, were analyzed using fundus photographs. In results the overall prevalence of asteroid hyalosis was found to be 0.543% (31/7,856). Out of 31 patients with asteroid hyalosis, 24 were men (24/4,421; 0.543%), and 7 were women (7/3,435; 0.204%). Among the 31 patients, 28 had unilateral and three had bilateral. In conclusion among the patients who underwent health screening, the prevalence of asteroid hyalosis was found to be 0.543%. These results may aid in explaining clinically rare conditions.
Keywords: asteroid hyalosis, health screening.

INTRODUCTION

Asteroid hyalosis appears as cream-white spherical bodies distributed throughout the vitreous either randomly or in chains or sheets. The prevalence of asteroid hyalosis has been reported to range from 0.83% to 1.96% [1-5]. Although asteroid hyalosis is generally considered to have only a minor impact on visual acuity, some patients are sufficiently disturbed by their visual symptoms to undergo surgical treatment. The condition is often unilateral, yet the etiology of asteroid hyalosis is not known. In this study, we report the prevalence of asteroid hyalosis.

MATERIALS AND METHODS

We conducted a retrospective survey of patients who visited the Jichi Medical University hospital for health screening from January 2014 through December 2014. A total of 7,856 patients, including 4,421 men and 3,435 women, were analyzed using fundus photographs taken with a non-mydriatric fundus camera.

RESULTS

The overall prevalence of asteroid hyalosis was found to be 0.543% (31/7,856). Out of 31 patients with asteroid hyalosis, 24 were men (24/4,421; 0.543%), and seven were women (7/3,435; 0.204%). Among the 31 patients, 28 had unilateral and three had bilateral asteroid hyalosis (Figure 1-3).

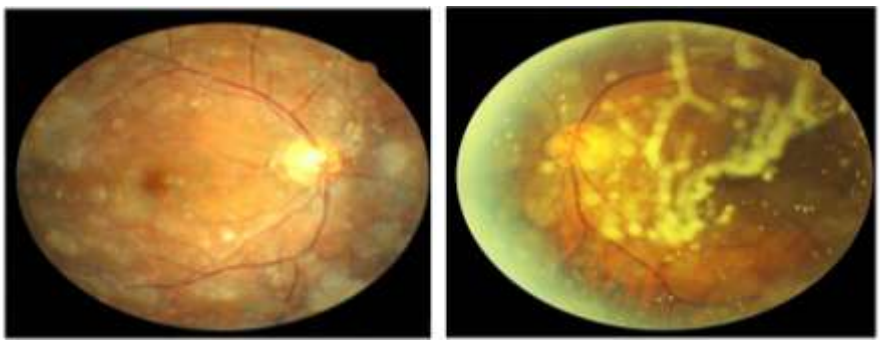

Fig 1: Asteroid hyalosis in this study

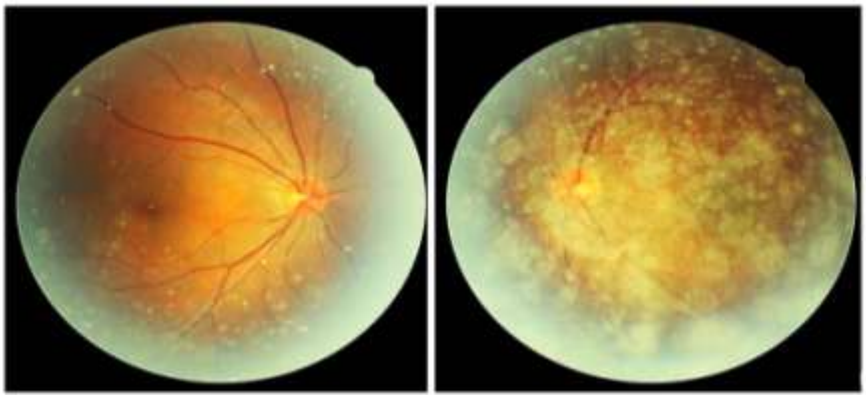

Fig 2: Bilateral asteroid hyalosis

DISCUSSION

Demographic data from previous and present studies of asteroid hyalosis is listed in Table 1.

To the best of our knowledge, there is only one report on the prevalence of asteroid hyalosis in patients who underwent health screening in Seoul, Korea [5]. This present study is the second report on the prevalence of asteroid hyaloss in Asian people.

Table 1: Demographic data from studies of asteoid hyalosis

	Source	**Prevalence, %** (sample size)	**Bilateral cases, %**	**Male-Female ratio**
Bergren *et al.;* [1]	Eye clinic	0.83 (101/12,205)	18.8	0.94:1
Moss *et al.;* [2]	Population	1.16 (57/4,926)	9	2.25:1
Mitchell *et al.;* [3]	Population	0.99 (36/3,654)	8.3	2.33:1
Fawzi *et al.;* [4]	Autopsy	1.96 (212/10,801)	19.8	2.48:1
Kim *et al.;* [5]	Health screening	0.36 (33/9,050)	12.1	1.75:1
Present study	Health screening	0.395 (31/7,856)	9.7	3.43:1

A limitation of this study is that our study subjects are a clinic-based population, as in most previous reports, so the subjects may not represent the general population of Japan. In addition, asteroid hyalosisis likely to be underestimated because photographs did not include the peripheral retina. We may also need to evaluate systemic diseases and eye-specific factors (refractive error, ocular trauma history, ocular surgery history, age-related macular degeneration, retinal vascular disease, posterior vitreous detachment).

CONCLUSION

Although our findings were based on a single fundus photograph of the posterior pole, these results may aid in explaining clinically rare conditions.

DISCLOSURE

The author declares that he has no conflicts of interest.

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