Visual fields and hysteria

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ABSTRACT — Hysteria has long been recognized as a cause of subjective visual field defects. This paper will review the visual field associated with hysteria and examine patient characteristics of those who have shown this type of visual field loss.

KEY WORDS — hysteria, functional field loss, tubular fields, spiral fields.

Introduction

The word hysteria dates back to the Greeks and means "wandering of the uterus,"[1] showing their association of the disorder with a sexual disturbance in females. Hysteria in the 1900s was considered a disease process of the brain, unassociated with sexuality.[2] More recently (1968), hysteria is considered a conversion reaction in which a sensory or motor dysfunction occurs in the absence of a physiologic abnormality or not explained by a physiologic disorder present.[3]

Krill and Newell[4] report that in hysteria, emotional stress is most likely converted into a disturbance of the neuromuscular or sensory perceptive system, resulting in symptoms which mimic organic disease. Symptoms concerning the visual system are the ones most often encountered by the eye practitioner, and the two most common symptoms or findings are hysterical amblyopia and/or hysterical visual field loss. This paper will concern itself to those changes of the visual field associated with hysteria.

The visual field defect typically found in hysteria and reported in the literature is that of tubular visual fields.[5,6] These are fields in which the linear size of the field does not change with the test distance. Other types of visual field defect variations reported in hysteria have received much less recognition, with the possible result of their relationship with the hysterical patient being overlooked. A review of the literature shows a variety of visual field defects besides those having a tubular nature reported in relation to hysteria.

The purpose of this paper will be to review these reports and present the various field defects found, to make the practitioner more aware of the variations he or she may expect to find when encountering such a patient. Characteristics of patients found to have hysterical fields will also be reviewed for the same purpose.

Patient characteristics

Incidence: One of the best known studies in the incidence of hysterical fields was done by Eames.[7] In this study done on 193 unselected school children, 9 percent exhibited classical hysterical visual field defects. In another study by Schaegel and Quilala[8] on 800 unselected eye patients, 5.25 percent were found to have hysterical-type field defects. (Note: Both of these studies used tubular fields only as their basis for inclusion in their statistics, possibly lowering the incidence they reported due to other hysterically related field defects not being considered.) Yasuna[9] feels that hysteria should be considered in all cases of amblyopia of unknown origin.

Age: It is generally found that most patients are children or

young adults when a diagnosis of hysteria is made.[10,11,12] Two studies also showed a significant (but lesser) incidence in the age group between 40 and 64 years of age.[13,14]

Sex: A higher proportion of females is almost always reported in the literature,[15,16,17] although one study found no sex differences except for the older age groups where, again females were more common.[18]

Other associated findings in hysteria

One of the most interesting features a patient with hysterical field loss demonstrates is a lack of concern for the loss. Harrington[19] states that "the hysterical person views his disability with a certain nonchalance not in keeping with his or her field loss." This is in contrast to the difficulty a patient with constricted fields due to organic lesions (such as retinitis pigmentosa) has with mobility or a patient who, when malingering about a field loss, exaggerates his loss and bumps into objects in an attempt to prove the feigned disability.

Also often associated with hysterical field loss is an associated amblyopia of some degree. This vision drop is usually bilateral and can often be reduced by the application of low powered lenses and the use of suggestion on the part of the examiner.

It has also been reported[20,21] that hysterics will sometimes give positive results on tests used to detect malingerers (those patients who feign vision loss for personal gain). This makes these tests of questionable value when a hysterical etiology is suspected. The reader is referred to Harrington, *The Visual Fields* (see references) for a more complete discussion on the differentiation of malingering vs. hysteria.

Visual field defects associated with hysteria

It is well known that the classic visual field finding associated with hysteria is tubular fields. The tip-off to this type of field is that the fields typically show bilateral, constricted, circular fields. The extent of the constriction varies but is usually to within 5 to 15 degrees of fixation although a slight constriction may also be found. When this type of field is found, the examiner should change the test distance and retest with a target providing the same visual angle as the original stimulus. In hysteria the usual finding is that at the new test distance (ex. 2 meters) the linear size of the field does not change, making the field appear tube-shaped instead of the expected normal conical shape. Harrington[22] feels that this finding is almost pathognomonic of the condition of hysteria and cannot be indicative of an organically caused visual field defect. The tangent screen is the most useful method to assess this type of field loss. The flexibility it offers allowing almost any testing distance to be used makes it the method of choice in evaluating a suspected hysterical field loss.

Another field defect associated with hysteria is the spiral or fatigue field. In this field, the extent of the field diminishes as each new meridian is tested. This type of defect is also found to have psychogenic etiologies other than hysteria that are beyond the scope of this paper.

These field defects (tubular and spiral) are the most common findings when dealing with a patient of this type, but there has also been a significant number of other visual field findings reported in relation to hysteria.

Central scotomas have been reported in hysteria.[23,24,25] These are usually bilateral in origin and show an inconsistency between the denseness of the scotoma and the measured visual acuity. This type of defect should again be checked at different testing distances to evaluate it for a functional etiology in cases where other neurological testing indicates no organic abnormality.

Ring scotomas have also been found in hysteria.[26,27] These scotomas may be partial or complete rings and can be differentially diagnosed from ring fields with organic causes, i.e. retinitis pigmentosa, certain toxic amblyopia, etc., by again using different test distances.

Bitemporal contractions, although rare, are also reported in the literature. Harrington[28] followed such a case for years in which all organic causes were ruled out and 1 and 2 meter fields were of the same linear size, indicative of a diagnosis of hysteria. This type of defect has also been found in pregnancy and there is disagreement regarding the functional vs. organic nature of this visual field defect in this situation.[29]

Hemianopsias are another field defect that have been found in hysteria.[30,31] It is often found in these cases that the functional nature of the hemianopsia can be shown by demonstrating it under binocular conditions, with monocular testing disclosing the defect only for the eye on the side of the binocular defect. This finding is due to the patient's ignorance of the visual pathway.

Other related visual field characteristics findings

In evaluating the visual fields of a suspected hysterical patient, certain characteristics of the fields other than their shape can be used in a diagnosis. First the field loss is most often bilateral[32] and usually symmetric. Organic lesions are rarely perfectly symmetric and even then, other signs proving

their structural etiology can usually be found. Second, the field loss demonstrated by hysterics is characterized by very sharp borders even when targets of varying sizes are employed.

It is also found that the hysteric's visual field is very open to suggestion. This factor can cause the fields to be inconsistent when testing is repeated, but also be a great aid in the diagnosis. An example of this would be to find another blind spot opposite the physiologic one after mild suggestion by the examiner. It is also interesting to note that although a patient's visual fields can be found to be extremely contracted, there is almost always no subjective complaint of this. This again relates to hysterics' apparent nonconcern about their vision loss.

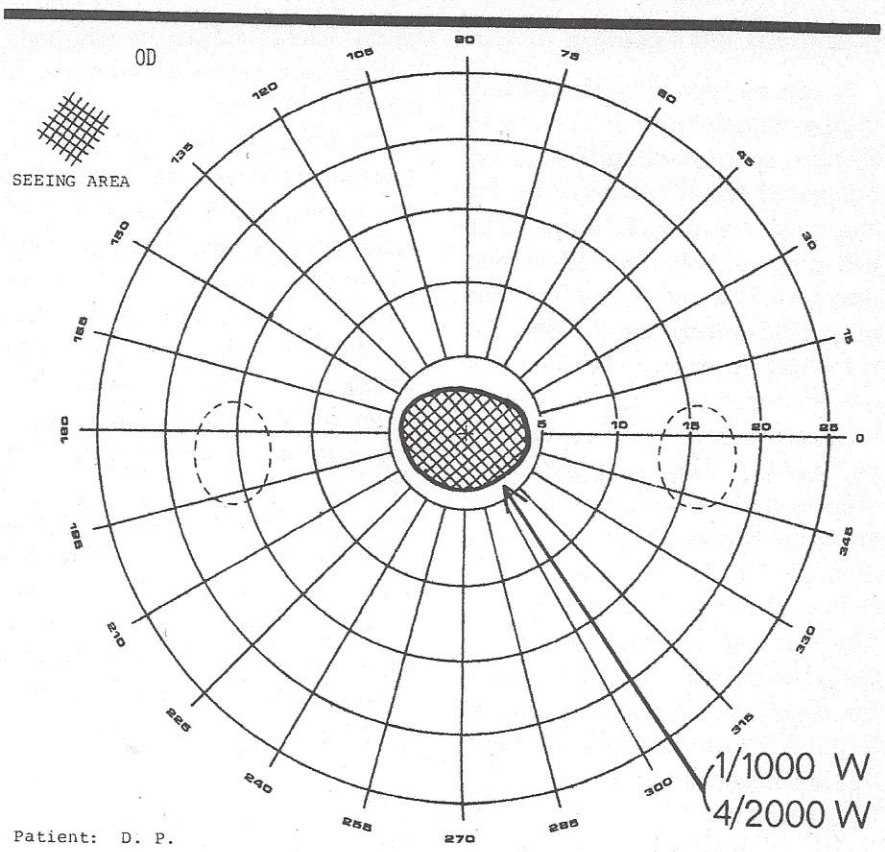

FIGURE 1

Case report

The following case report demonstrates almost the classical hysterical patient findings. D.P., a 10-year-old male, was seen in the Optometric Center of Fullerton with the chief complaint of trouble focusing on close work and also the blackboard. It was discovered that the occurrence of these problems coincided with a drop in his school performance in the past two months.

Examination findings:

Uncorrected visual acuities:

6M	40 cm
O.D. 20/15	20/40
O.S. 20/25	20/60

Subjective BVA:

	6M	40cm
O.D. +0.75 sph.	20/15	20/20
O.S. +0.75 sph.	20/15	20/20

Fusion was Grade A far and near, EOM were unrestricted and confrontation showed constricted fields. Binocular testing showed orthophoria at distance and 3 exophoria at near with adequate compensation vergences. Accommodative responses were found to be within normal limits. All eye structures were seen to be normal and healthy. Visual field testing showed 5° fields at one meter by tangent screen (see Figure 1) with no increase in the linear size of the fields when they were retested at 2 meters with a larger tangent.

When low plus lenses were utilized at the nearpoint, the patient subjectively noticed great relief from his ocular discomfort and his reading speed was noticed to improve. Subsequent visual field testing showed that his fields had returned to the normal size (approximately 30°).

With these findings we questioned the parents further about the possible etiology of this functional disturbance. It was then learned that there had been much stress on the boy to achieve better in school in the past two months but that this problem had just within the last week been resolved and that his work was now beginning to improve according to his new teacher.

The nature of the findings were discussed with his parents and the probable relationship with his situation in school and at home was related as the most likely cause of his symptoms. The low plus lenses were prescribed for all nearpoint work with the understanding of his parents that the lenses may relieve the strain on his eyes caused by nearpoint tasks but more importantly, relieved the boy's symptoms and made him feel better subjectively.

This brief case shows the usual course of events these situations take. In most cases, the cause of the functional field loss can be ascertained and the application of suggestion or other techniques such as low powered lenses can "cure" the problem.

Discussion and summary

It can be seen that almost any type of field defect can be found in relation to hysteria, although tubular and spiral fields are by far the most common findings. The use of visual fields for differential diagnosis is based on the fact that most field defects are of such a nature that an organic lesion could not produce them. This is demonstrated most often by using various testing distances, although other techniques are often helpful, such as the comparison of the binocular to the monocular visual field and the use of suggestion. The tangent screen is the most useful instrument in most cases for these evaluations because of its flexibility in allowing different testing situations to be created by the examiner.

Other diagnostic techniques that can be utilized by the eye practitioner include the use of low powered lens and "magic" eye drops to see if the vision and/or field loss can be modified. In the more difficult diagnoses, special electrodiagnostic techniques (e.g., Visual Evoked Response, Electroretinogram, and Electro-Oculogram) can be utilized to eliminate an organic cause for the vision and/or field loss.

Hysteria is felt to be best treated by psychoanalysis. This treatment, by a professional counselor is often needed to disclose the underlying reason for the discord in the patient's emotional state. Suggestion by the counselor is often used to provide immediate relief from the symptoms before psychotherapy can begin. The prognosis in almost all cases is good if the full scope of treatment methods is utilized. Symptoms sometimes spontaneously disappear even without treatment although this is not the rule. Thus all cases should be given serious consideration in case a deep seated psychological[33] problem is at cause. **AOA**

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Paraoptometric Section Congress Activities

The AOA Paraoptometric Section sponsored 90 hours of education at basic, intermediate, and advanced levels at the AOA Congress in Denver. Ninety-two paraoptometrics from all parts of the country registered for the three-and-one-half-day program.

Rita Pierce, the newly installed chairman of the Section, announced to the Section's general membership that the Section's theme for 1980-81 is "Through Education We Can Grow." She outlined plans to administer the Optometric Assistant and Technician Registry Examinations and to develop the field of paraoptometric education. Ms. Pierce is the director of the optometric technician program at Columbus Technical Institute in Ohio.

The Section elected the following individuals to serve as officers and members of the Section Council for 1980-81: first vice-chairman — Catherine Muhr, Sunnyvale, California; second vice-chairman — Ann Waterman, Liberty, Missouri; secretary — Pat Hendricks, Charleston, South Carolina; and Council members, Elaine Cooper of New Castle, Indiana and Pat O'Brien of Monroeville, Pennsylvania. Carol Schartner, the immediate past chairman of the Section, will also retain a seat on the Section Council.

At its annual awards luncheon, the Section presented Janet McMahon of Hermosa Beach, California with the first annual Paraoptometric of the Year Award. Mrs. McMahon, an assistant of 21 years to her husband, Dr. Thomas McMahon, was selected on the basis of her outstanding service to paraoptometrics and optometrists. The Paraoptometric of the Year Award was funded by Liberty Optical.

The paraoptometric program at Congress ended with a four-hour leadership symposium, conducted by the members of the Paraoptometric Section Council.