



Medical Acupuncture

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Macular Degenerative Disease And Acupuncture Safety Precautions

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ABSTRACT

Acupuncture is used to treat adult macular degenerative disease (AMD). There are very little data to evaluate its success. The authors of this paper recommend that clinicians appropriately know the status of their patient's condition and follow the guidelines of the American Academy of Ophthalmology Preferred Practice Guidelines prior to any acupuncture therapy.

KEY WORDS

Macular Degenerative Disease, Acupuncture, Safety Issues, American Academy of Ophthalmology Preferred Practice Guidelines (AAOPPG)

INTRODUCTION

Research on the Internet demonstrates that many practitioners offer complementary and alternative medicine (CAM) treatments for ocular disease. The success of these therapeutic modalities has not been determined. It is important that many ocular diseases has evolving pathology that should be clarified before any CAM treatment be pursued.

It is critical that clinicians do not become complacent in the practice of acupuncture, and negligent in following good standards of care. Instead, each patient deserves a thorough evaluation appropriate for the presenting complaint consistent with what we learned in our formal training, which includes an in-depth history, physical examination, and appropriate laboratory investigations. Acupuncturists should follow the same course of action before initiating therapy, and appropriately refer the patient when specialized assistance is warranted.

Age-related macular degenerative disease (AMD) treatment with acupuncture has become an area of increasing interest, especially by physicians. Lundgren's recent publications have stimulated research and clinical interest among medical acupuncturists.^{1,2} Recently, the American Academy of Medical Acupuncture (AAMA) devoted a workshop session to acquaint physician members with acupuncture techniques for the treatment of macular degenerative disease.³ Niemtow reports that some physicians are avoiding body acupuncture points and are exclusively employing electro-auriculotherapy on the basis that needles placed in the periorbital area of the eye and electronically stimulated may present safety concerns to the patient. Despite this warning, Lundgren reports few side effects with body points other than rare orbital ecchymosis.^{1,2} This has also been confirmed in a clinical trial at Malcolm Grow Medical Center (MGMC), Andrews Air Force Base, Maryland, by Niemtow et al (R.N., personal communication, 2005).

As previously reported, our clinical trial at MGMC requires that all patients must initially be examined by an ophthalmologist prior to treatment. This tactic is reasonable and perhaps should not be reserved just for research patients. However, we do not wish to make a double standard as recommended by the American Academy of Ophthalmology Preferred Practice guidelines.⁴ We feel that patients treated with acupuncture for macular degenerative disease in a non-research environment should follow these guidelines.

The following case discusses one of our own patients diagnosed with macular degenerative disease and scheduled for acupuncture. The pa-

tient stated that he had "no complaints" and his eyes were fine except for "weak vision." Furthermore, his ophthalmologist followed him regularly with the last examination recently performed. Despite this information, we decided to defer therapy until the patient was examined by our ophthalmologist.

CASE REPORT

An 80-year-old man with a diagnosis of macular degenerative who had been declared legally blind in both eyes for 3 years presented desiring acupuncture treatment to improve his vision. He had an extensive history of neo-vascular AMD in both eyes, and was status post subretinal surgery in the left eye and laser treatments in the right eye. At his last exam with the retinal specialist 3 months prior to presentation for acupuncture treatment, he was found to have 20/200 vision in both eyes with no active choroidal neovascularization.

According to our MGMC AMD protocol, the patient was examined by an ophthalmologist. He had no new visual complaint. His vision was 20/400 in the right eye and 20/200 in the left eye. The macula in both eyes had large disciform scars. However, the right macula also had a rim of new subretinal hemorrhage and elevation. A fluorescein angiogram was done and revealed findings consistent with a new choroidal neovascular membrane at the edge of the old scar. Current standard of care indicated treatment with either anti-VEGF (vascular endothelial growth factor) injection, laser treatment, or Visudyne (verteporfin) treatment. No acupuncture treatment was recommended at this time.

DISCUSSION

Our opinion is that any ocular hemorrhage in a patient with macular degenerative disease is a contraindication to perform acupuncture. The pre-treatment eye examination is an absolute requirement before acupuncture in the MGMC research protocol. Acupuncture may cause an exacerbation of hemorrhage and could be implicated as a contributing factor in a medical legal issue. However, many AMD cases are treated in private practice and are not on a research protocol. Whether or not acupuncture points on the body near the eye or in the ear are employed, clinicians should be aware of the risk of progression with AMD.

Risk of Progression

1. Early AMD defined by Age-Related Eye Disease Study (AREDS Category 2) patients generally have central visual acuity similar to those of patients who have normal maculae, and have a 1.3% risk of pro-

gressing to advanced AMD at 5 years in either eye.⁵

2. Intermediate AMD (AREDS Category 3) patients have a progression rate to advanced AMD at 5 years of approximately 18%.^{5,6}
3. Advanced AMD (AREDS Category 4) patients generally are already having visual acuity loss. Approximately 43% of the eyes of such patients may develop neovascular changes or geographic atrophy involving the fovea over 5 years in the remaining good eye.^{7,8}

Geographic Atrophy

This involves the central subfoveal areas and is an advanced form of non-neovascular AMD. While severe visual loss occurs less commonly in patients with geographic atrophy than in patients with neovascular AMD, geographic atrophy involving the center of the fovea causes approximately 10% of all AMD-related visual loss of 20/200 or worse.⁹ Patients with geographic atrophy may have relatively good distance visual acuity, but a significantly decreased capacity for near visual tasks such as reading. Over 2 years, progressive visual loss to doubling of the visual angle has been reported to occur in as many as 50% of patients.⁹

Choroidal neovascularization (CNV) can lead to severe visual loss (defined as quadrupling of the visual angle) within 5 years if untreated; 40% of the untreated patients in one study developed severe visual loss after 2 to 3 years.^{10,11}

Follow-up Recommendations for AMD Per American Academy of Ophthalmology Preferred Practice Guidelines

1. Patients currently being treated with observation with no medical or surgical therapies (includes early AMD or advanced AMD with bilateral subfoveal geographic atrophy or disciform scars).

A comprehensive medical eye evaluation performed every 2 to 4 years for patients between ages 40 and 64, and every 1 to 2 years for patients 65 years old and older, seems to offer a reasonable approach to the detection of patients with risk factors for visual loss.¹²

Patients self-check monocular near vision (reading/Amsler grid) to become aware of subtle visual symptoms due to CNV.

For patients at this stage, it is reasonable to determine that they have had an eye exam including examination of the macula within 1 year prior to beginning acupuncture. Subsequent eye exams should be done as recommended by their ophthalmologist or if there is a change in the near vision (reading/Amsler grid).

2. Patients currently being treated with antioxidant vitamin and mineral supplements (includes intermediate AMD or advanced AMD in 1 eye).

Monitoring of monocular near vision (reading/Amsler grid)

Return exam at 6 to 24 months if asymptomatic or prompt exam for new symptoms suggestive of CNV.

Patients in this category should have an eye exam including examination of the macula within 6 months of beginning acupuncture. Subsequent eye exams should be done as recommended by the patient's ophthalmologist or if there is a change in the near vision (reading/Amsler grid).

3. Patients being treated with thermal laser photocoagulation, photodynamic therapy with verteporfin, or pegaptanib sodium intravitreal injection.

Follow-up with retina specialist as indicated by the recommendations for each specific therapy.¹³

Patients in this category should not be treated with acupuncture while undergoing other treatments or are still within the surveillance period following other treatments. Once the patient is cleared by the ophthalmologist as stable, then the recommendations as stated in #2 above should be followed.

CONCLUSIONS

This is an area of acupuncture needing clinical judgment. If the physician does not have any evidence from the patient in writing regarding diagnosis and follow-up, then it is appropriate *not* to treat the patient. A verbal statement from the patient is not enough; documentation should be obtained. It is important that we protect ourselves *and* our patients. Too often we are eager and very enthusiastic to begin our acupuncture treatment when all Western modalities have failed. "Of course, I can!" On the other hand, we need to be prudent until our acupuncture experience increases in AMD, and meaningful statistics can be developed from clinical experience. "Do no harm!"

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