

## CLINICAL VIGNETTE

# Integrative East-West Medicine for Dysconjugate Gaze In a Patient with Graves' Orbitopathy

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A 63-year-old female smoker presented to her primary care physician with progressively worsening blurry vision eventually leading to vertical diplopia. She was diagnosed with Graves' disease and appropriately treated with radioactive iodine. However, despite reaching a euthyroid state, there was no improvement in her ocular symptoms. She was evaluated by the UCLA Jules Stein Eye Institute. Steroid treatment was deferred as she lacked active inflammatory signs. There was also concern about potential side effects, including exacerbation of her hypertension and anxiety. The patient declined strabismus surgery in search of alternative therapies and a referral was made to the UCLA Center for East-West Medicine. Initial exam revealed right eyelid retraction, dysconjugate gaze with left eye mimicking a 3rd nerve palsy, spasm of the trapezius and splenius capitis muscles, and startle reaction with palpation of most acupressure points. Acupuncture and trigger point injections were administered weekly, with marked improvement in eye position, dysconjugate gaze, and diplopia after eight treatments. The patient reported that she was able to climb up and down stairs without the need of a handrail, and was able to walk over curbs without difficulty. During her most recent clinic visit, she stated that her diplopia had improved significantly and, most of the time, she saw a single image. She also reported giving serious consideration to driving again.

### Pre Treatment



### Post Treatment



### Discussion

Graves' orbitopathy (GO) is an autoimmune inflammatory disorder characterized by upper eyelid retraction, edema, conjunctivitis, erythema, & proptosis. The pathology mostly affects persons between 30-50 years of age, with females four times more likely to develop symptoms<sup>1</sup>. Most patients are asymptomatic with only about 3-5% experiencing moderate-severe disease, though cigarette smoking raises the incidence 7.7-fold<sup>2</sup>. In active disease, inflammation and edema of the extraocular muscles lead to gaze abnormalities. The most commonly affected muscle is the inferior rectus, and patients may thus experience vertical diplopia on upward gaze and limitation of orbital elevation due to muscle fibrosis. Diplopia is initially intermittent but can gradually become chronic. Although some patients may undergo spontaneous remission of symptoms, many require treatment. The first step is to regulate thyroid levels. Corticosteroids may reduce inflammation, but are limited because of their side effect profile. Radiation therapy is an alternative but unproven option to reduce inflammation. Surgery is often performed to decompress the orbit, improve the proptosis, and address the strabismus causing diplopia<sup>3</sup>.

A literature search for moderate-to-severe GO using complementary and integrative medicine treatments proved to be limited<sup>4</sup>. However, the effect on the thyroidal axis by several alternative modalities

including acupuncture, has been described<sup>5,6</sup>. Traditional Chinese herbal medicine in the form of Jia Wei Xiao Yao San, Xia Ku Cao, Bei Mu, and oyster shell has also been described as an effective option for hyperthyroidism<sup>7</sup>. Case studies have illustrated that acupuncture in addition to acupressure massage can be an effective form of therapy for ocular conditions related to hyperthyroidism, such as infiltrative exophthalmos and strabismus<sup>8,9</sup>. Lifestyle changes including smoking cessation, and supplementation with vitamins and minerals such as L-carnitine, iodine, lithium, and B-complex vitamins have shown promise in alleviating some symptoms of hyperthyroidism<sup>10,11</sup>. Anecdotal evidence in the form of multiple case studies, including our own, suggests further research may be warranted to elucidate the potential benefit of alternative treatments for moderate-to-severe GO.

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