Letter to the Editor

To the Editor: Dr. Kushner is to be commended for the important contributions he has made to our understanding of ocular torsional movements. All of us who are interested in this subject have benefited from his observations. Nevertheless, his conclusion that static compensatory ocular counterrolling does not occur after head tilt is inconsistent with numerous facts and observations.

The fact that it really does occur can be easily appreciated by any observer using a simple afterimage experiment.\(^1\)\(^2\) The experiment requires access to an afterimage strobe as is typically used to test for anomalous retinal correspondence, a Maddox rod or Bagolini lens, and a trial frame. With one eye occluded, a vertical afterimage is created on the retina of the subject. This afterimage will then continue to mark the meridian between 12 o’clock and 6 o’clock retina regardless of the position of the eye or the amount the head is tilted. While the subject appreciates the afterimage, a Maddox rod or Bagolini lens is then rotated so that the line that it creates on the retina appears to the subject to be exactly superimposed on the afterimage. If the subject then tilts his or her head, both lines will be seen to move with the head. However, in the steady-state position at the end of head tilt, it will be evident that the line created by the afterimage will appear to have lagged behind the line created by the lens and the trial frame. This indicates the eye did not rotate as far as the head. By rotating the lens in the trial frame until the lines are again superimposed, one can quantify the amount of compensatory ocular countertorsion that occurred. It is typically 5 to 10 degrees, depending on the magnitude of the head tilt. I suggest all readers interested in this issue to try this simple experiment themselves. The results should be completely convincing, even to the most diehard skeptics. In a prior Letter to the Editor regarding Dr. Jampel’s work, I described this experiment and suggested that readers (including Dr. Jampel) try it for themselves.\(^3\)\(^4\) Regrettably, in that letter I only described performing the experiment using a Maddox rod and did not indicate that it is equally impressive when a Bagolini lens is used. In his reply to my letter, Dr. Jampel dismissed this observation with the contention that the use of a Maddox rod “disrupts the fusion reflex and uncovers a

References


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