

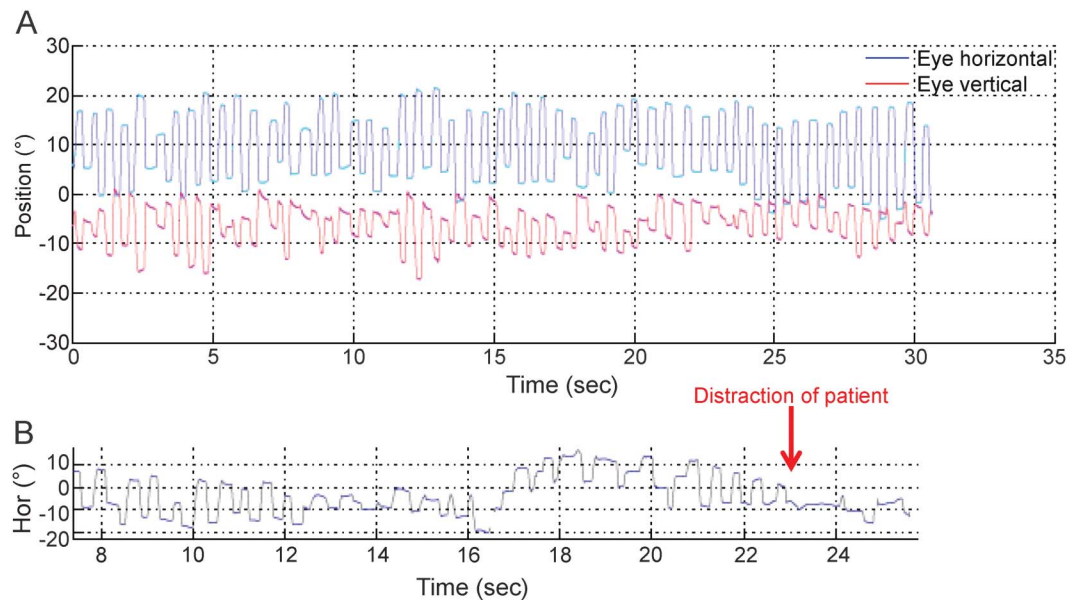
Teaching Video NeuroImages: Functional saccadic oculomotor disturbances



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Figure Recording of eye movements by video-oculography (left eye)



The patient was asked to fixate a target point. (A) Traces show horizontal eye position in blue and vertical eye position in red. Upward blue upward traces indicate eye movement to the right, downward to the left (each more than 20°). Since there were also vertical components (documented in red traces), the direction of eye movements was often oblique. (B) Traces show horizontal eye position. After distraction of the patient (marked by arrow), the irregular eye jerks with inconsistent amplitudes and intersaccadic intervals disappear.

A 37-year-old woman presented with persistent spinning vertigo, diplopia, and blurred vision of acute onset 6 months ago. Neuro-ophthalmologic examination revealed oculomotor disturbances (video at Neurology.org). These eye movements were absent when the patient was not being examined, i.e., when reading or sitting in the waiting hall. Based on these findings and confirmed by video-oculography (figure), the diagnosis of functional oculomotor disturbances could be made. The prevalence of functional oculomotor disturbances is largely unknown, with convergence spasm and functional nystagmus being most common.¹ Video-oculographic documentation allows objective quantification of these high-amplitude eye movements in the presence of well-preserved intersaccadic intervals and dependence of attention in

contrast to central oculomotor disturbances.² Further, macro square-wave jerks are mostly asymptomatic, paired, small, saccadic intrusions taking the eye off target at an amplitude of 5°–15° and returning after an intersaccadic interval of 70–150 ms.² In opsoclonus, symptomatic with blurred vision and oscillopsia, saccadic oscillations occur unpredictably in all directions (horizontal, vertical, and diagonal) without an intersaccadic interval.²

AUTHOR CONTRIBUTIONS

Dr. Feil: manuscript preparation, drafting/revising the manuscript for content, including medical writing, medical care of patient. M. Klemm: performed the neuro-ophthalmologic examinations, including video filming for submission. Dr. Schöberl: manuscript review, critique, including medical writing for content, medical care of patient. Prof. Strupp: idea, manuscript review, critique, including medical writing for content, medical care of patient.

Supplemental data
at Neurology.org

Download teaching slides:
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Go to Neurology.org for full disclosures. Funding information and disclosures deemed relevant by the authors, if any, are provided at the end of the article.

ACKNOWLEDGMENT

The authors thank Katie Ogston for copyediting the manuscript.

STUDY FUNDING

No targeted funding reported.

DISCLOSURE

K. Feil, F. Schoeberl, and M. Klemm report no disclosures relevant to the manuscript. M. Strupp is Joint Chief Editor of the *Journal of Neurology*, Editor-in-Chief of *Frontiers of Neuro-otology*, and Section Editor of *F1000*. He has received speaker's honoraria from Abbott,

Actelion, Biogen, Eisai, GSK, Henning Pharma, Interacoustics, MSD, Otometrics, Pierre-Fabre, TEVA, and UCB. He acts as a consultant for Abbott, Actelion, IntraBio, and Sensorion. Go to Neurology.org for full disclosures.

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Teaching Video *NeuroImages*: Functional saccadic oculomotor disturbances

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Neurology 2017;88:e30-e31

DOI 10.1212/WNL.0000000000003513

This information is current as of January 16, 2017

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