Wrong side dilated pupil

A 59-year-old man with alcoholic liver disease became comatose from a left acute subdural hematoma. He developed a fixed dilated right pupil but the left pupil was responsive to light. Oculovestibular responses were normal. He had right extensor posturing. At autopsy uncal herniation was not found, but there was a diagonally shifted and rotated brainstem likely tethering or compressing the contralateral third nerve against the tentorium ridge or clivus (figure). In the pre-CT era, a false localizing fixed pupil led to negative exploratory burr holes. Presently, this phenomenon is still a confusing, inadequately understood curiosity.1,2

Eelco F.M. Wijdicks, MD, PhD, Caterina Giannini, MD, PhD

From the Division of Critical Care Neurology and Department of Anatomic Pathology, Mayo Clinic, Rochester, MN.

Author contributions: Eelco F.M. Wijdicks: drafting/revising the manuscript, study concept or design, accepts responsibility for conduct of research and final approval, acquisition of data. Caterina Giannini: drafting/revising the manuscript, study concept or design, analysis or interpretation of data, accepts responsibility for conduct of research and final approval.

Study funding: No targeted funding reported.

Disclosure: The authors report no disclosures relevant to the manuscript. Go to Neurology.org for full disclosures.

Correspondence to Dr. Wijdicks: wijde@mayo.edu

Wrong side dilated pupil
Eelco F.M. Wijdicks and Caterina Giannini
Neurology 2014;82;187
DOI 10.1212/WNL.0000000000000025

This information is current as of January 13, 2014

Updated Information & Services
including high resolution figures, can be found at:
http://www.neurology.org/content/82/2/187.full.html

References
This article cites 2 articles, 1 of which you can access for free at:
http://www.neurology.org/content/82/2/187.full.html##ref-list-1

Citations
This article has been cited by 1 HighWire-hosted articles:
http://www.neurology.org/content/82/2/187.full.html##otherarticles

Subspecialty Collections
This article, along with others on similar topics, appears in the following collection(s):
Coma
http://www.neurology.org/cgi/collection/coma
Pupils
http://www.neurology.org/cgi/collection/pupils

Permissions & Licensing
Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:
http://www.neurology.org/misc/about.xhtml#permissions

Reprints
Information about ordering reprints can be found online:
http://www.neurology.org/misc/addir.xhtml#reprintsus