

- Doppler sonography, and arteriography. *Radiology* 1992;182:35-40.
- 33 Wagle WA, Dumoulin CL, Souza SP, Cline HE. 3DFT MR angiography of carotid and basilar arteries. *Am J Neuroradiology* 1989;10:911-9.
 - 34 Masaryk TJ, Modic MT, Ruggieri PM, et al. Three-dimensional (volume) gradient-echo imaging of the carotid bifurcation: preliminary clinical experience. *Radiology* 1989;171:801-6.
 - 35 Riles TS, Eidelman EM, Litt AW, et al. Comparison of magnetic resonance angiography, conventional angiography, and duplex scanning. *Stroke* 1992;23:341-6.
 - 36 Mattle HP, Kent C, Edelman RR, Atkinson DJ, Skillman JJ. Evaluation of the extracranial carotid arteries: correlation of magnetic resonance angiography, and conventional angiography. *J Vasc Surg* 1991;13:838-45.
 - 37 Kido DK, Barsotti JB, Rice LZ, et al. Evaluation of the carotid artery bifurcation: comparison of magnetic resonance angiography and digital subtraction arch aortography. *Neuroradiology* 1991;33:48-51.
 - 38 Furuya Y, Isoda H, Hasegawa S, Takahashi M, Kaneko M, Uemura K. Magnetic resonance angiography of extracranial carotid and vertebral arteries, including their origins: comparison with digital subtraction angiography. *Neuroradiology* 1992;35:42-5.
 - 39 Kido DK, Panzer RJ, Szumowski J, et al. Clinical evaluation of stenosis of the carotid bifurcation with magnetic resonance angiographic techniques. *Arch Neurol* 1991;48:484-9.
 - 40 Litt AW, Eidelman EM, Pinto RS, et al. Diagnosis of carotid artery stenosis: comparison of 2DFT time-of-flight MR angiography with contrast angiography in 50 patients. *Am J Neuroradiol* 1991;12:149-54.
 - 41 Laster Jr. RE, Acker JD, Halford III HH, Nauert TC. Assessment of MR angiography versus arteriography for evaluation of cervical carotid bifurcation disease. *Am J Neuroradiol* 1993;14:681-8.
 - 42 Huston III J, Lewis BD, Wiebers DO, Meyer FB, Riederer SJ, Weaver AL. Carotid artery: prospective blinded comparison of two-dimensional time-of-flight MR angiography with conventional angiography and duplex US. *Radiology* 1993;186:339-44.
 - 43 Masaryk TJ, Obuchowski NA. Noninvasive carotid imaging: caveat emptor. *Radiology* 1993;186:325-8.
 - 44 Polak JF. Noninvasive carotid evaluation: carpe diem. *Radiology* 1993;186:329-31.
 - 45 Schuler JJ, Flanagan DP, Lim LT, Keifer T, Williams LR, Behrend AJ. The effect of carotid siphon stenosis on stroke rate, death, and relief of symptoms following elective carotid endarterectomy. *Surgery* 1982;92:1058-67.
 - 46 Mattos MA, van Bemmelen PS, Hodgson KJ, Barkmeier LD, Ramsey DE, Sumner DS. The influence of carotid siphon stenosis on short- and long-term outcome after carotid endarterectomy. *J Vasc Surg* 1993;17:902-11.
 - 47 Anson JA, Heiserman JE, Drayer BP, Spetzler RF. Surgical decisions on the basis of magnetic resonance angiography of the carotid arteries. *Neurosurgery* 1993;32:335-43.
 - 48 Anderson CM, Saloner D, Tsuruda JS, Shapeero LG, Lee RE. Artifacts in maximum-intensity-projection display of MR angiograms. *Am J Radiol* 1990;154:623-9.

NEUROLOGY IN LITERATURE

Essential tremor

Descriptions of essential tremor in literature have commented more on titubation than movement of the limbs. Thomas Mann was clearly aware of the hereditary nature of the condition. I have not encountered a description recognising the disorder's alcohol responsiveness though no doubt Mrs Gamp would have been delighted to justify her dependence on purely medicinal grounds. George Stephenson might have been tempted to attribute his problem to the frustrations of dealing with Sir Astley Cooper. That eminent surgeon had opposed the London to Birmingham railway as being too threatening to his property at Berkhamsted.

Charles Dickens, 1843-4, Martin Chuzzlewit
Mrs Gamp concluded by drawing her shawl tightly over herself with both hands, and, as usual, referred to Mrs Harris for full corroboration of these particulars. She had that peculiar trembling of the head which, in ladies of her excitable nature, may be taken as a sure indication of their breaking out again very shortly. . .

Elizabeth Gaskell, 1853, Cranford
This effort at concealment was the beginning of the tremulous motion of head and hands which I have seen ever since in Miss Matty.

Samuel Smiles, 1857, The lives of George and Robert Stephenson
Although he had for some time been in delicate health, and his hand shook from nervous affection, he appeared to possess a sound constitution.

George Eliot, 1860, The mill on the Floss
He wears a hare-skin on his chest, and has a trembling in his talk. . .

Arnold Bennett, 1911, Hilda Lessways
"And on Saturday afternoon too, when everybody's abroad!" Sarah Gailey added gloomily, with her involuntary small movements of the head. . . "Oh! my poor dear!" Sarah Gailey moaned feebly, her head bobbing with its unconscious nervous movements.

James Joyce, 1916, A portrait of the artist as a young man
He struck the flags again and tittered while his head trembled with a slight nervous movement.

Thomas Mann, 1924, The magic mountain
It was this posture also which helped to steady an incipient shaking of the head, gave him his look of being sternly reined up, and caused him to support his chin on his neckcloth in the manner so congenial to little Hans Castorp's taste. . . Young Hans Castorp noticed that the ancestral tremor brought on by his ill-advised walk continued to trouble him—he found it rather an embarrassment when in the dining-room almost as a regular thing now, his head would begin shaking at table; he found this impossible to prevent and hard to dissemble. He tried various devices to disguise the weakness, for he could not continually support his chin on his collar; he would keep his head in action, turning it to the right and left in conversation, or bear hard against the table with the left forearm when he carried a spoonful of soup to his mouth, and support his head with his hand.

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