

Home > Journal > Medicine & Healthcare > IJCM

[Indexing](#) [View Papers](#) [Aims & Scope](#) [Editorial Board](#) [Guideline](#) [Article Processing Charges](#)

IJCM > Vol.4 No.1, January 2013

OPEN ACCESS

Carotid Sinus Hypersensibility: A Concept on the Way

PDF (Size: 94KB) PP. 5-7 DOI: 10.4236/ijcm.2013.41002

Author(s)

Alfonso Lagi

ABSTRACT

This review examines the pathogenesis of Carotid Sinus Hypersensitivity (CSH) by describing the different hypotheses that exist in literature. One hypothesis is that CSH is not a disease of the heart but of the central and/or peripheral nervous system where the heart is the victim. CSH is associated with cognitive disturbance, vasovagal syncope and orthostatic hypotension. Another hypothesis is that the CSH is considered a syndrome or a symptom associated with different diseases so as to require a diagnostic framework. This Hypothesis is the basis of frequent recurrences that are associated with the pacemaker implant therapy only.

KEYWORDS

Syncope; Autonomic Nervous System; Pacing; Physiology

Cite this paper

A. Lagi, "Carotid Sinus Hypersensibility: A Concept on the Way," *International Journal of Clinical Medicine*, Vol. 4 No. 1, 2013, pp. 5-7. doi: 10.4236/ijcm.2013.41002.

References

- [1] A. Leatham, "Carotid Sinus Syncope," *British Heart Journal*, Vol. 47, No. 5, 1982, pp. 409-410. doi:10.1136/hrt.47.5.409
- [2] L. Gould, C. V. Reddy, W. H. Becker, K. C. Oh and S. G. Kim, "Usefulness of Carotid Sinus Pressure in Detecting the Sick Sinus Syndrome," *Journal of Electrocardiology*, Vol. 11, No. 3, 1978, pp. 261-268. doi:10.1016/S0022-0736(78)80126-5
- [3] C. A. Morley, W. M. Hudson, E. J. Perrins and R. Sutton, "Is There a Difference between Sick Sinus Syndrome and Carotid Sinus Syndrome?" *British Heart Journal*, Vol. 49, 1983, pp. 620-621.
- [4] S. McIntosh, J. Lawson and R. A. Kenny, "Clinical Characteristics of Vasodepressor Cardio Inhibitory and Mixed Carotid Sinus Syndrome in the Elderly," *American Journal of Medicine*, Vol. 95, No. 2, 1993, pp. 203-208. doi:10.1016/0002-9343(93)90261-M
- [5] S. Weiss and J. Baker, "The Carotid Sinus Reflex in Health and Disease: Its Role in the Causation of Fainting and Convulsions," *Medicine*, Vol. 12, No. 3, 1933, pp. 297-354. doi:10.1097/00005792-193309000-00003
- [6] N. van der Velde, A. H. van den Meiracker, H. A. Pols, B. H. Stricker and T. J. van der Cammen, "Withdrawal of Fall-Risk-Increasing Drugs in Older Persons: Effect on Tilt-Table Test Outcomes," *Journal of the American Geriatrics Society*, Vol. 55, No. 5, 2007, pp. 734-739. doi:10.1111/j.1532-5415.2007.01137.x
- [7] N. P. Kumar, A. Thomas, P. Mudd, R. O. Morris and T. Masud, "The Usefulness of Carotid Sinus Massage in Different Patient Groups," *Age Ageing*, Vol. 32, No. 6, 2003, pp. 666-669. doi:10.1093/ageing/afg114
- [8] M. Oinas, A. Paetau, L. Myllykangas, I. L. Notkola, H. Kalimo and T. Polvikoski, "α-Synuclein Pathology in the Spinal Cord Autonomic Nuclei Associates with α-Synuclein Pathology in the Brain: A Population-Based Vantaa 85+ study," *Acta Neuropathologica*, Vol. 119, No. 6, 2010, pp. 715-722.

- [Open Special Issues](#)
- [Published Special Issues](#)
- [Special Issues Guideline](#)

[IJCM Subscription](#)

[Most popular papers in IJCM](#)

[About IJCM News](#)

[Frequently Asked Questions](#)

[Recommend to Peers](#)

[Recommend to Library](#)

[Contact Us](#)

Downloads: 159,831

Visits: 311,600

[Sponsors, Associates, and Links >>](#)

- [9] V. M. Miller, R. A. Kenny, J. Y. Slade, A. E. Oakley and R. N. Kalaria, " Medullary Autonomic Pathology in Carotid Sinus Hypersensitivity," *Neuropathology and Applied Neurobiology*, Vol. 34, No. 4, 2008, pp. 403-411. doi:10.1111/j.1365-2990.2007.00903.x
- [10] P. J. Toorop, M. R. Scheltinga, M. H. Bender, J. A. Charbon, M. C. Huige, F. L. Moll and C. M. Bruijninx, " Effective Surgical Treatment of the Carotid Sinus Syndrome," *The Journal of Cardiovascular Surgery*, Vol. 50, No. 5, 2009, pp. 683-686.
- [11] H. H. Trout, L. L. Brown and J. E. Thompson, " Carotid Sinus Syndrome: Treatment by Carotid Sinus Denervation," *Annals of Surgery*, Vol. 189, No. 5, 1979, pp. 575-580.
- [12] R. J. Toorop, M. R. Scheltinga, M. C. Huige and F. L. Moll, " Clinical Results of Carotid Denervation by Adventitial Stripping in Carotid Sinus Syndrome," *European Journal of Vascular and Endovascular Surgery*, Vol. 39, No. 2, 2010, pp. 146-52. doi:10.1016/j.ejvs.2009.09.009
- [13] R. J. Toorop, M. R. Scheltinga and F. L. Moll, " Adventitial Stripping for Carotid Sinus Syndrome," *Annals of Vascular Surgery*, Vol. 23, No. 4, 2009, pp. 538-547. doi:10.1016/j.avsg.2008.11.008
- [14] S. H. Tea, J. Mansourati, G. L' Heveder, D. Mabin and J. J. Blanc, " New Insights into the Pathophysiology of Carotid Sinus Syndrome," *Circulation*, Vol. 93, No. 7, 1996, pp. 1411-1416. doi:10.1161/01.CIR.93.7.1411
- [15] J. J. Blanc, G. L' Heveder, J. Mansourati, S. H. Tea, P. Guillo and D. Mabin, " Assessment of a Newly Recognized Association: Carotid Sinus Hypersensitivity and Denervation of Sternocleidomastoid Muscles," *Circulation*, Vol. 95, No. 11, 1997, pp. 2548-2551. doi:10.1161/01.CIR.95.11.2548
- [16] A. K. Patel, V. U. Yap, J. Fields and J. H. Thomsen, " Carotid Sinus Syndrome Induced by Malignant Tumours in the Neck: Emergence of Vasodepressor Manifestations Following Pacemaker Therapy," *Archives of Internal Medicine*, Vol. 139, No. 11, 1979, pp. 1281-1284. doi:10.1001/archinte.1979.03630480061019
- [17] H. R. Muntz and P. G. Smith, " Carotid Sinus Hypersensitivity: A Cause of Syncope in Patients with Tumors of the Head and Neck," *Laryngoscope*, Vol. 93, No. 10, 1983, pp. 1290-1293.
- [18] A. Sorgente, A. Sarkozy, G. B. Chierchia, C. de Asmundis, L. Capulzini and P. Brugada, " Carotid Sinus Hypersensitivity Following Radiotherapy Delivery in a Patient with Bilateral Glomus Jugular Tumour," *Journal of Cardiovascular Medicine (Hagerstown)*, Vol. 12, No. 9, 2011, pp. 675-677. doi:10.2459/JCM.0b013e32833a0a2d
- [19] M. P. Tan, R. A. Kenny, T. J. Chadwick, S. R. Kerr and S. W. Parry, " Carotid Sinus Hypersensitivity: Disease State or Clinical Sign of Ageing? Insights from a Controlled Study of Autonomic Function in Symptomatic and Asymptomatic Subjects," *Europace*, Vol. 12, No. 11, 2010, pp. 1630-1636. doi:10.1093/europace/euq317
- [20] C. Finucane, G. Boyle, C. W. Fan, D. Hade, L. Byrne and R. A. Kenny, " Mayer Wave Activity in Vasodepressor Carotid Sinus Hypersensitivity," *Europace*, Vol. 12, No. 2, 2010, pp. 247-253. doi:10.1093/europace/eup385
- [21] M. P. Tan, J. L. Newton, T. J. Chadwick and S. W. Parry, " The Relationship between Carotid Sinus Hypersensitivity, Orthostatic Hypotension, and Vasovagal Syncope: A Case-Control Study," *Europace*, Vol. 10, No. 12, 2008, pp. 1400-1405. doi:10.1093/europace/eun278
- [22] A. Fedorowski, P. Burri, S. Juul-Moller and O. Melander, " A Dedicated Investigation Unit Improves Management of Syncopal Attacks (Syncope Study of Unselected Population in Malmo —SYSTEMA I)," *Europace*, Vol. 12, No. 9, 2010, pp. 1322-1328. doi:10.1093/europace/euq168
- [23] J. C. Milton, T. C. Lee and S. H. Jackson, " Determinants of a Positive Response to Carotid Sinus