



### H105 Multiple Symmetric Lipomatosis

*Patrick M. Kosciuk, MD, University of Wisconsin School of Medicine, 1685 Highland, Madison, WI 53705; Samuel Prahlow\*, Valparaiso University, 1900 Centre Pointe Boulevard, Apt 93, Tallahassee, FL 32308; and Joseph A. Prahlow, MD, Western Michigan University School of Medicine, 300 Portage Street, Kalamazoo, MI 49007*

After attending this presentation, attendees will: (1) recognize the features of multiple symmetric lipomatosis, a condition associated with chronic alcoholism; and, (2) understand the possible lethal complications of the disorder.

This presentation will impact the forensic science community by highlighting multiple symmetric lipomatosis, a rare and potentially lethal disorder with a known association to chronic alcoholism.

A significant number of medicolegal deaths involve ethanol. Deaths may be related to the acute, intoxicating effects of ethanol, either in decedents or within persons responsible for causing the deaths of others. Additionally, deaths may be related to chronic alcoholism. A chronic alcoholic may display characteristic external features that allow an observer, such as a forensic pathologist or other physician, to conclude that he/she is probably an alcoholic. Classic external dermatologic stigmata of chronic alcoholism include jaundice, telangiectasias, caput medusa, and palmar erythema.<sup>1</sup> Reported herein are two decedents with a rare condition known as Multiple Symmetric Lipomatosis (MSL), which has a strong correlation to chronic alcoholism. Identification of the peculiar features associated with MSL should prompt the forensic pathologist to consider chronic alcoholism as a probable diagnosis.

**Case 1:** A 63-year-old man was found dead at home. He had quit drinking approximately two years earlier. He was referred for medicolegal autopsy. At autopsy, he was noted to have a very peculiar appearance, with excessive amounts of subcutaneous adipose tissue involving the proximal upper extremities, upper chest, lower abdomen, and upper thighs, in a bilaterally symmetric pattern. Internal examination revealed hypertensive and atherosclerotic cardiovascular disease, with severe coronary artery atherosclerosis. Toxicology testing was essentially negative.

**Case 2:** A 57-year-old alcoholic was found dead in his apartment by his landlord, two days after having been involved in a physical altercation with another person. The body was referred for medicolegal autopsy. External examination was notable for the presence of abundant subcutaneous adipose tissue within the proximal upper arms, the chest, the abdomen, and the proximal thighs. Although there was evidence of healing superficial trauma, there were no lethal injuries identified. Internal examination disclosed additional findings of chronic alcoholism, including dilated cardiomyopathy and hepatic steatosis. Also present were pulmonary emphysema and mild to moderate coronary artery atherosclerosis. A postmortem blood ethanol level was 86mg/dL.

MSL has been described using multiple eponyms including Madelung's Disease, Launois-Bensaude Syndrome, and Benign Symmetric Lipomatosis.<sup>2-4</sup> The disorder primarily affects men and can be characterized by fat accumulation around the nape of the neck, upper back, shoulders, and upper arms; the external appearance presents as distinct, well-circumscribed, grossly round masses that protrude from the surface of the body.<sup>5</sup> The disease usually presents in the fourth and fifth decades.<sup>6</sup> The classic presentation depicts a male patient with moderate to high alcohol consumption; alcoholism is described in a majority of patients.<sup>5</sup> Although multiple theories regarding pathogenesis and its relationship to ethanol have been postulated, the underlying cause remains unknown. Known complications include lipomatous infiltration of the mediastinum, somatic and autonomic neuropathy, and malignant transformation, any of which may cause or contribute to death.<sup>6,7</sup>



Although rare, the condition known as multiple symmetric lipomatosis should be considered a manifestation of chronic alcoholism. At autopsy, recognition of rare complications, including mediastinal infiltration/compression by fat, autonomic dysfunction, and malignant transformation, may aid in determination of the cause of death.

### Reference(s):

1. Liu S.W., Lien M.H., Fenske N.A. The effects of alcohol and drug abuse on the skin. *Clin Dermatol* 2010 Jul-Aug;28(4):391-9.
2. Madelung O.W.: Ueber den fatthals (diffuses Lipom des Halses). *Arch Klin Chir* 37:106, 1888.
3. Launois P.E., Bensaude R. De l'adenolipomatose symetrique. *Bull. Mem. Soc. Med. Hop. Paris.* 1898;1: 298-318.
4. Ruzicka T., Vieluf D., Landthaler M., Braun-Falco O. Benign symmetric lipomatosis – Launois-Bensaude – Report of ten cases and review of the literature. *J Am Acad Dermatol* 1987;17:663-74.
5. Enzi G. Multiple symmetric lipomatosis: an updated clinical report. *Medicine* 1984; 63:56-64.
6. Enzi G., Busetto L., Ceschin E., Coin A., Digito M., Pigozzo S. Multiple symmetric lipomatosis: clinical aspects and outcome in a long-term longitudinal study. *Int J Obes Relat Metab Disord.* 2002 Feb;26(2): 253-61.
7. Tizian C., Berger A., Vykoupil K.T. Malignant degeneration in Madelung's disease (benign lipomatosis of the neck): case report. *British J Plastic Surg.* 1983;36(2):187-189.

---

### Lipomatosis, Alcoholism, Autopsy