

CHAPTER 29

LYMPHEDEMA (I89.0)

Çiğdem ÇINAR¹

REMEMBER

- ▶ Lymphedema is defined as the accumulation of lymph fluid in the interstitium due to the decrease in lymph drainage in the presence of normal capillary filtration.
- ▶ Lymphedema is more common in women than in men.
- ▶ It may present as primary or secondary lymphedema.
- ▶ Primary lymphedema may rarely be associated with other syndromes such as Turner syndrome, Noonan syndrome and yellow nail syndrome.
- ▶ Depending on the age of onset, primary lymphedema can be divided into three categories:
 - congenital lymphedema (immediately after birth; e.g., Milroy's disease)
 - lymphedema precox (e.g., Meige's Disease in adolescence)
 - lymphedema tarda (after 35 years of age)
- ▶ Secondary (acquired) lymphedema is much more common, caused by damage or blockage of previously normal lymphatics.
- ▶ Common causes of secondary (acquired) lymphedema are malignancy, radiation, and surgical lymph node dissection with recurrent cellulitis, trauma, filariasis, morbid obesity, and chronic venous insufficiency.

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- ▶ Eligible patients should also be referred for kinesio taping. There are studies reporting that it may be beneficial in women with upper extremity lymphedema due to breast cancer.
- ▶ Low energy laser application may be one of the treatment options. Patients should also be given appropriate exercise programs. For the reasons mentioned above, a PM&R specialist should definitely be involved in the treatment of patients suffering from lymphedema.

Nutrition and Dietetics

- ▶ Since weight loss is one of the important treatment steps in patients with lymphedema who are overweight, appropriate diets and nutrition education should be given.

Clinical Pharmacology

- ▶ Drugs that may cause secondary lymphedema should be reviewed (e.g., calcium channel blockers, acyclovir, some antidepressants, oral contraceptives, non-steroidal anti-inflammatory agents, some antidiabetics, and chemotherapeutic agents such as cyclophosphamide).

REFERENCES

- Shavit E, Wollina U, Alavi A. Lipoedema is not lymphoedema: A review of current literature. *Int Wound J*. 2018;15(6):921–8.
- Biglia N, Zanfagnin V, Daniele A, Robba E, Bounous VE. Lower body lymphedema in patients with gynecologic cancer. *Anticancer Res*. 2017;37(8):4005–15.
- Pekyavaş NÖ, Tunay VB, Akbayrak T, Kaya S, Karataş M. Complex decongestive therapy and taping for patients with postmastectomy lymphedema: A randomized controlled study. *Eur J Oncol Nurs*. 2014;18(6):585–90.
- Dayan JH, Ly CL, Kataru RP, Mehrara BJ. Lymphedema: Pathogenesis and Novel Therapies. *Annu Rev Med*. 2018;69(August 2017):263–76.
- Kerchner K, Fleischer A, Yosipovitch G. Lower extremity lymphedema. Update: Pathophysiology, diagnosis, and treatment guidelines. *J Am Acad Dermatol*. 2008;59(2):324–31.
- Moffatt CJ, Franks PJ, Doherty DC, Williams AF, Badger C, Jeffs E, et al. Lymphoedema: An underestimated health problem. *QJM - Mon J Assoc Physicians*. 2003;96(10):731–8.
- Tiwari A, Cheng KS, Button M, Myint F, Hamilton G. Differential diagnosis, investigation, and current treatment of lower limb lymphedema. *Arch Surg*. 2003;138(2):152–61.
- Sharma A, Schwartz RA. Stewart-Treves syndrome: Pathogenesis and management. *J Am Acad Dermatol* [Internet]. 2012;67(6):1342–8. Available from: <http://dx.doi.org/10.1016/j.jaad.2012.04.028>
- Ramaiah KD, Ottesen EA. Progress and Impact of 13 Years of the Global Programme to Eliminate Lymphatic Filariasis on Reducing the Burden of Filarial Disease. *PLoS Negl Trop Dis*. 2014;8(11).
- Maclellan RA, Zurakowski D, Voss S, Greene AK. Correlation Between Lymphedema Disease Severity and Lymphoscintigraphic Findings: A Clinical-Radiologic Study. *J Am Coll Surg* [Internet]. 2017;225(3):366–70. Available from: <http://dx.doi.org/10.1016/j.jamcollsurg.2017.06.005>
- Grada AA, Phillips TJ. Lymphedema: Pathophysiology and clinical manifestations. *J Am Acad Dermatol*. 2017;77(6):1009–20.
- Thompson B, Gaitatzis K, Janse de Jonge X, Blackwell R, Koelmeyer LA. Manual lymphatic drainage treatment for lymphedema: a systematic review of the literature. *J Cancer Surviv*. 2021;15(2):244–58.
- Du X, Liu C. Application of imaging in lymphedema surgical therapies. *Gland Surg*. 2020;9(2):582–8.
- Schaverien M V., Coroneos CJ. Surgical Treatment of Lymphedema. *Plast Reconstr Surg*. 2019;144(3):738–58.
- Kasawara KT, Mapa JMR, Ferreira V, Added MAN, Shiwa SR, Carvas N, et al. Effects of Kinesio Taping on breast cancer-related lymphedema: A meta-analysis in clinical trials. *Physiother Theory Pract* [Internet]. 2018;34(5):337–45. Available from: <https://doi.org/10.1080/09593985.2017.1419522>

BÖLÜM 26

LENFÖDEM (I89.0)

Çiğdem ÇINAR¹

HATIRLA

- Lenfödem, normal kapiller filtrasyon varlığında lenf drenajındaki azalmaya bağlı olarak interstisyum içinde lenf sıvısının birikmesi olarak tariflenir.
- Lenfödem kadınlarda erkeklere göre daha çok görülür.
- Hastalık primer veya sekonder lenfödem şeklinde prezente olabilir.
- Primer lenfödem Turner sendromu, Noonan sendromu ve sarı tırnak sendromu gibi diğer sendromlarla nadiren ilişkili olabilir.
- Başlangıç yaşına bağlı olarak, primer lenfödem üç kategoriye ayrılabilir:
 - konjenital lenfödem (doğumdan hemen sonra Örn: Milroy hastalığı),
 - lenfödem prekoks (ergenlik döneminde Örn: Meige Hastalığı),
 - lenfödem tarda (35 yaşından sonra).
- Sekonder (edinilmiş) lenfödem primer lenfödeme göre daha sık görülür ve daha önce normal olan lenfatiklerin hasar görmesinden veya tıkanmasından kaynaklanır.
- Sekonder lenfödem yaygın nedenleri arasında maligniteler, radyasyon ve cerrahi lenf nodu diseksiyonu ile tekrarlayan selülit, travma, filariyazis (fil hastalığı), morbid obezite ve kronik venöz yetmezlik yer alır.

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uygun egzersiz programları verilmelidir. Bu nedenlerden dolayı lenfödemi hastaların tedavisinde FTR uzmanı mutlaka yer almaktadır.

Beslenme ve Diyetetik

- ▶ Fazla kilosu olan lenfödemi hastalarda kilo kaybının sağlanması önemli tedavi basamaklarından biri olduğu için uygun diyetler ve beslenme eğitimi verilmelidir.

Klinik Farmakoloji

- ▶ Sekonder lenfödeme neden olabilecek ilaçlar gözden geçirilmelidir (ör: kalsiyum kanal blokerleri, asiklovir, bazı antidepresanlar, oral kontraseptifler, non-steroid anti-inflamatuvar ajanlar (NSAİİ), bazı antidiyabetikler ve siklofosamid gibi kemoterapötik ajanlar).

KAYNAKLAR

Shavit E, Wollina U, Alavi A. Lipoedema is not lymphoedema: A review of current literature. *Int Wound J*. 2018;15(6):921–8.

Biglia N, Zanfagnin V, Daniele A, Robba E, Bounous VE. Lower body lymphedema in patients with gynecologic cancer. *Anticancer Res*. 2017;37(8):4005–15.

Pekyavaş NÖ, Tunay VB, Akbayrak T, Kaya S, Karataş M. Complex decongestive therapy and taping for patients with postmastectomy lymphedema: A randomized controlled study. *Eur J Oncol Nurs*. 2014;18(6):585–90.

Dayan JH, Ly CL, Kataru RP, Mehrara BJ. Lymphedema: Pathogenesis and Novel Therapies. *Annu Rev Med*. 2018;69(August 2017):263–76.

Kerchner K, Fleischer A, Yosipovitch G. Lower extremity lymphedema. Update: Pathophysiology, diagnosis, and treatment guidelines. *J Am Acad Dermatol*. 2008;59(2):324–31.

Moffatt CJ, Franks PJ, Doherty DC, Williams AF, Badger C, Jeffs E, et al. Lymphoedema: An underestimated health problem. *QJM - Mon J Assoc Physicians*. 2003;96(10):731–8.

Tiwari A, Cheng KS, Button M, Myint F, Hamilton G. Differential diagnosis, investigation, and current treatment of lower limb lymphedema. *Arch Surg*. 2003;138(2):152–61.

Sharma A, Schwartz RA. Stewart-Treves syndrome: Pathogenesis and management. *J Am Acad Dermatol* [Internet]. 2012;67(6):1342–8. Available from: <http://dx.doi.org/10.1016/j.jaad.2012.04.028>

Ramaiah KD, Ottesen EA. Progress and Impact of 13 Years of the Global Programme to Eliminate Lymphatic Filariasis on Reducing the Burden of Filarial Disease. *PLoS Negl Trop Dis*. 2014;8(11).

Maclellan RA, Zurakowski D, Voss S, Greene AK. Correlation Between Lymphedema Disease Severity and Lymphoscintigraphic Findings: A Clinical-Radiologic Study. *J Am Coll Surg* [Internet]. 2017;225(3):366–70. Available from: <http://dx.doi.org/10.1016/j.jamcollsurg.2017.06.005>

Grada AA, Phillips TJ. Lymphedema: Pathophysiology and clinical manifestations. *J Am Acad Dermatol*. 2017;77(6):1009–20.

Thompson B, Gaitatzis K, Janse de Jonge X, Blackwell R, Koelmeyer LA. Manual lymphatic drainage treatment for lymphedema: a systematic review of the literature. *J Cancer Surviv*. 2021;15(2):244–58.

Du X, Liu C. Application of imaging in lymphedema surgical therapies. *Gland Surg*. 2020;9(2):582–8.

Schaverien M V, Coroneos CJ. Surgical Treatment of Lymphedema. *Plast Reconstr Surg*. 2019;144(3):738–58.

Kasawara KT, Mapa JMR, Ferreira V, Added MAN, Shiwa SR, Carvas N, et al. Effects of Kinesio Taping on breast cancer-related lymphedema: A meta-analysis in clinical trials. *Physiother Theory Pract* [Internet]. 2018;34(5):337–45. Available from: <https://doi.org/10.1080/09593985.2017.1419522>