

BÖLÜM 3

SİROZ YÖNETİMİNDE NON-FARMAKOLOJİK YAKLAŞIMLAR

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GİRİŞ

Siroz, sağlıklı karaciğer parankimasının fibrotik doku ve rejeneratif nodüllerle yer değiştirmesine ve portal hipertansiyona yol açan uzun bir inflamasyon dönemi-nin ardından gelişen bir hastalıktır. Hastalık, asemptomatik faz (kompanse siroz) ve semptomatik faz (dekompanse siroz) olmak üzere iki fazdan oluşur. Kompan-se fazdan dekompanse faza geçiş olduğunda bu fazın komplikasyonları genellikle hastaneye yatış, yaşam kalitesinin bozulması ve yüksek mortalite ile sonuçlanır (1). Siroz, artan ölüm oranları nedeniyle oldukça önemli bir halk sağlığı soru-nudur. Son 200 yılda ortalama yaşam beklentisinin neredeyse iki katına çıkması sonucu geç yaşta ortaya çıkan hastalıklar artık daha fazla insanı etkilemektedir. Gelişmiş ülkeler sosyal hizmet taleplerini bir dereceye kadar karşılayabilirken, gelişmekte olan ülkeler ise yaşlanmayla bağlantılı kronik hastalıklar için uzun vadeli bakım ihtiyaçlarını yönetmede zorlanmaktadır. 2019 rakamlarına göre si-roz, dünya çapındaki toplam ölüm oranının %2,4'üne katkıda bulunmaktadır (2). Dünya çapında görülen en yaygın 11. ölüm nedeni olan sirozun yıllık ölüm sayısı 1 milyonun üzerindedir (1). Sirozun semptom yönetiminde farmakolojik yakla-şımın yanı sıra beslenme, besin takviyeleri, egzersiz, hasta eğitimi, alternatif ve tamamlayıcı terapiler, geleneksel Çin tıbbı ve öz yönetim müdahaleleri gibi non-farmakolojik yaklaşımlar önerilmektedir. Bu bütüncül stratejiler, hastaların yaşam kalitesini artırmada ve hastalığın olumsuz etkilerini azaltmada önemli kat-kılar sağlamaktadır.

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tarzı müdahalelerinin başlanmasına olanak tanıyarak hastalığın ilerlemesini ya-
vaşlatmak ve komplikasyonların gelişimini önlemek açısından büyük önem taşır.

KAYNAKLAR

1. Ginès P, Krag A, Abraldes JG, et al. Liver cirrhosis. *The Lancet*. 2021;398(10308):1359–1376. doi:10.1016/S0140-6736(21)01374-X.
2. Lu K, Sui J, Yu W, et al. An analysis of the burden of liver cirrhosis: differences between the global, china, the <scp>united states</scp> and india. *Liver International*. 2024;44(12):3183–3203. doi:10.1111/liv.16087.
3. Wilson R, Williams DM. Cirrhosis. *Medical Clinics of North America*. 2022;106(3):437–446. doi:10.1016/j.mcna.2021.12.001.
4. Chinese Society of Gastroenterology CMA. Chinese consensus on the management of liver cirrhosis. *Journal of Digestive Diseases*. 2024;25(6):332–352. doi:10.1111/1751-2980.13294.
5. Julien J, Ayer T, Bethea ED, et al. Projected prevalence and mortality associated with alcohol-related liver disease in the usa, 2019–40: a modelling study. *The Lancet Public health*. 2020;5(6):e316–e323. doi:10.1016/S2468-2667(20)30062-1.
6. Smith A, Baumgartner K, Bositis C. Cirrhosis: diagnosis and management. *American family physician*. 2019;100(12):759–770. .
7. Sepanlou SG, Safiri S, Bisignano C, et al. The global, regional, and national burden of cirrhosis by cause in 195 countries and territories, 1990–2017: a systematic analysis for the global burden of disease study 2017. *The Lancet Gastroenterology & Hepatology*. 2020;5(3):245–266. doi:10.1016/S2468-1253(19)30349-8.
8. Lee WY, Lee TT, Hou IC, et al. Using a mobile application to promote patient education for patients with liver cirrhosis. *CIN: Computers, Informatics, Nursing*. 2024;42(10):722–730. doi:10.1097/CIN.0000000000001189.
9. Devarbhavi H, Asrani SK, Arab JP, et al. Global burden of liver disease: 2023 update. *Journal of Hepatology*. 2023;79(2):516–537. doi:10.1016/j.jhep.2023.03.017.
10. Aden S, Lauridsen MM, Grønkjær LL. Self-management interventions to patients with cirrhosis: a scoping review. *Hepatology Communications*. 2024;8(11)doi:10.1097/HC9.0000000000000576.
11. Bunchorntavakul C. Sarcopenia and frailty in cirrhosis. *Medical Clinics of North America*. 2023;107(3):589–604. doi:10.1016/j.mcna.2022.12.007.
12. Calmet F, Martin P, Pearlman M. Nutrition in patients with cirrhosis. *Gastroenterology & hepatology*. 2019;15(5):248–254.
13. Traub J, Reiss L, Aliwa B, et al. Malnutrition in patients with liver cirrhosis. *Nutrients*. 2021;13(2):540. doi:10.3390/nu13020540.
14. Alavinejad P, Hajiani E, Danyae B, et al. The effect of nutritional education and continuous monitoring on clinical symptoms, knowledge, and quality of life in patients with cirrhosis. *Gastroenterology and hepatology from bed to bench*. 2019;12(1):17–24.
15. Merli M, Berzigotti A, Zelber-Sagi S, et al. EASL clinical practice guidelines on nutrition in chronic liver disease. *Journal of Hepatology*. 2019;70(1):172–193. doi:10.1016/j.jhep.2018.06.024.
16. Iwasa M, Iwata K, Hara N, et al. Nutrition therapy using a multidisciplinary team improves survival rates in patients with liver cirrhosis. *Nutrition*. 2013;29(11–12):1418–1421. doi:10.1016/j.nut.2013.05.016.
17. Gao M, Li J, Zhang Y, et al. Short-term physical activity reduces metabolic-associated steatohepatitis by promoting the degradation of branched-chain amino acids in skeletal muscle. *Journal of Clinical and Translational Hepatology*. 2025;000(000):000–000. doi:10.14218/JCTH.2025.00072.
18. Kittiprachakul S, Maung ST, Poorirerngpoom N, et al. Exercise and nutrition interventions for sarcopenia in cirrhosis: a systematic review and network meta-analysis of randomized controlled trials. *European Journal of Clinical Nutrition*. 2025;doi:10.1038/s41430-025-01642-w.

19. Aamann L, Dam G, Borre M, et al. Resistance training increases muscle strength and muscle size in patients with liver cirrhosis. *Clinical Gastroenterology and Hepatology*. 2020;18(5):1179-1187.e6. doi:10.1016/j.cgh.2019.07.058.
20. Cui M, Sun M, Bu L. The effect of comfort nursing on liver function and nursing satisfaction of patients with liver cirrhosis. *American journal of translational research*. 2021;13(6):6973–6979.
21. Lee S, Joo Y, Jang Y. EHealth self-management interventions for patients with liver cirrhosis: scoping review. *Journal of Medical Internet Research*. 2025;27:e68650–e68650. doi:10.2196/68650.
22. Nouri-Vaskeh M, Malek Mahdavi A, Afshan H, et al. Effect of curcumin supplementation on disease severity in patients with liver cirrhosis: a randomized controlled trial. *Phytotherapy Research*. 2020;34(6):1446–1454. doi:10.1002/ptr.6620.
23. Bisht S, Khan MA, Bekhit M, et al. A polymeric nanoparticle formulation of curcumin (nanocurcTM) ameliorates ccl4-induced hepatic injury and fibrosis through reduction of pro-inflammatory cytokines and stellate cell activation. *Laboratory Investigation*. 2011;91(9):1383–1395. doi:10.1038/labinvest.2011.86.
24. Bruck R, Ashkenazi M, Weiss S, et al. Prevention of liver cirrhosis in rats by curcumin. *Liver International*. 2007;27(3):373–383. doi:10.1111/j.1478-3231.2007.01453.x.
25. Rivera-Espinoza Y, Muriel P. Pharmacological actions of curcumin in liver diseases or damage. *Liver International*. 2009;29(10):1457–1466. doi:10.1111/j.1478-3231.2009.02086.x.
26. Nouri-Vaskeh M, Afshan H, Malek Mahdavi A, et al. Curcumin ameliorates health-related quality of life in patients with liver cirrhosis: a randomized, double-blind placebo-controlled trial. *Complementary Therapies in Medicine*. 2020;49:102351. doi:10.1016/j.ctim.2020.102351.
27. Lukkunaprasit T, Tansawet A, Boonmanunt S, et al. An updated meta-analysis of effects of curcumin on metabolic dysfunction-associated fatty liver disease based on available evidence from iran and thailand. *Scientific reports*. 2023;13(1):5824. doi:10.1038/s41598-023-33023-3.
28. Goodarzi R, Sabzian K, Shishehbor F, et al. Does turmeric/curcumin supplementation improve serum alanine aminotransferase and aspartate aminotransferase levels in patients with non-alcoholic fatty liver disease? a systematic review and meta-analysis of randomized controlled trials. *Phytotherapy Research*. 2019;33(3):561–570. doi:10.1002/ptr.6270.
29. Jalali M, Mahmoodi M, Mosallanezhad Z, et al. The effects of curcumin supplementation on liver function, metabolic profile and body composition in patients with non-alcoholic fatty liver disease: a systematic review and meta-analysis of randomized controlled trials. *Complementary Therapies in Medicine*. 2020;48:102283. doi:10.1016/j.ctim.2019.102283.
30. Mirhafez SR, Farimani AR, Dehhaba M, et al. Effect of phytosomal curcumin on circulating levels of adiponectin and leptin in patients with non-alcoholic fatty liver disease: a randomized, double-blind, placebo-controlled clinical trial. *Journal of Gastrointestinal and Liver Diseases*. 2019;28(2):183–189. doi:10.15403/jgld-179.
31. Abbas-Hashemi SA, Yari Z, Hatami B, et al. Caffeine supplement, inflammation, and hepatic function in cirrhotic patients: a randomized, placebo- controlled, clinical trial. *Heliyon*. 2025;11(1):e41138. doi:10.1016/j.heliyon.2024.e41138.
32. Mijangos-Trejo A, Nuño-Lambarri N, Barbero-Becerra V, et al. Prebiotics and probiotics: therapeutic tools for nonalcoholic fatty liver disease. *International Journal of Molecular Sciences*. 2023;24(19):14918. doi:10.3390/ijms241914918.
33. Escouto GS, Port GZ, Tovo C V., et al. Probiotic supplementation, hepatic fibrosis, and the microbiota profile in patients with nonalcoholic steatohepatitis: a randomized controlled trial. *The Journal of Nutrition*. 2023;153(7):1984–1993. doi:10.1016/j.tjnut.2023.05.019.
34. Mohamad Nor MH, Ayob N, Mokhtar NM, et al. The effect of probiotics (mcp[®] bcmc[®] strains) on hepatic steatosis, small intestinal mucosal immune function, and intestinal barrier in patients with non-alcoholic fatty liver disease. *Nutrients*. 2021;13(9)doi:10.3390/nu13093192.
35. Ayob N, Muhammad Nawawi KN, Mohamad Nor MH, et al. The effects of probiotics on small intestinal microbiota composition, inflammatory cytokines and intestinal permeability in patients with non-alcoholic fatty liver disease. *Biomedicines*. 2023;11(2)doi:10.3390/biomedicines11020640.

36. Dong S, Chen QL, Su SB. Curative effects of fuzheng huayu on liver fibrosis and cirrhosis: a meta-analysis. *Evidence-Based Complementary and Alternative Medicine*. 2015;2015:1–11. doi:10.1155/2015/125659.
37. Zhao ZM, Zhu CW, Huang JQ, et al. Efficacy and safety of fuzheng huayu tablet on persistent advanced liver fibrosis following 2 years entecavir treatment: a single arm clinical objective performance criteria trial. *Journal of Ethnopharmacology*. 2022;298:115599. doi:10.1016/j.jep.2022.115599.
38. Fan H, Lei S, Zhao Z, et al. Beneficial effects of traditional chinese medicine fuzheng huayu on the occurrence of hepatocellular carcinoma in patients with compensated chronic hepatitis b cirrhosis receiving entecavir: a multicenter retrospective cohort study. *Journal of Clinical and Translational Hepatology*. 2024;12(5):505–515. doi:10.14218/JCTH.2023.00521.
39. Gui HL, Zhao CQ, Wang Y, et al. Histological outcome of fuzheng huayu plus entecavir combination therapy in chronic hepatitis b patients with significant liver fibrosis. *Journal of clinical and translational hepatology*. 2020;8(3):277–284. doi:10.14218/JCTH.2020.00004.
40. Liu H liang, Lv J, Zhao Z min, et al. Fuzhenghuayu decoction ameliorates hepatic fibrosis by attenuating experimental sinusoidal capillarization and liver angiogenesis. *Scientific Reports*. 2019;9(1):18719. doi:10.1038/s41598-019-54663-4.
41. Yu R, Shi R, Chen J, et al. Investigating the mechanism of the fuzheng huayu formula in treating cirrhosis through network pharmacology, molecular docking, and experimental verification. *ACS Omega*. 2025;doi:10.1021/acsomega.5c01225.
42. Beg S, Curtis S, Shariff M. Patient education and its effect on self-management in cirrhosis. *European Journal of Gastroenterology & Hepatology*. 2016;28(5):582–587. doi:10.1097/MEG.0000000000000579.
43. Goldsworthy MA, Fateen W, Thygesen H, et al. Patient understanding of liver cirrhosis and improvement using multimedia education. *Frontline Gastroenterology*. 2017;8(3):214–219. doi:10.1136/flgastro-2016-100761.