

Successful Treatment of End-Stage Cirrhosis with Massive Ascites: A Case Report with 24-Year Follow-up

wenxia Li

doctor3399@qq.com

Beijing Pingshantang Institute of Refractory Diseases

Case Report

Keywords: End-stage cirrhosis, Refractory massive ascites, Massive ascites drainage, Recompensation, Chinese-Western medicine, 24-year follow-up

Posted Date: October 21st, 2026

DOI: <https://doi.org/10.21203/rs.3.rs-11425307/v1>

License: © ⓘ This work is licensed under a Creative Commons Attribution 4.0 International License.

[Read Full License](#)

Additional Declarations: The authors declare no competing interests.

Abstract

Background

End-stage cirrhosis with massive ascites carries a high short-term mortality rate. We report a case of end-stage cirrhosis with massive ascites successfully treated with combined Chinese-Western medicine, with 24-year follow-up confirming sustained health.

Case Presentation:

A patient with end-stage cirrhosis presented with massive ascites on December 7, 2002. Over 10,500 mL of ascites was drained within 24 hours, with an estimated residual volume of 15,000–20,000 mL. To our knowledge, this is the largest 24-hour ascites drainage volume reported in a patient with cirrhosis. The patient received combined Chinese-Western medicine treatment from December 7, 2002, to November 30, 2003. Within 36 days, ascites completely resolved, and core liver function parameters returned to near-normal levels. The patient remained healthy for 24 years. In February 2019, she developed acute cholecystitis with gallstones and severe liver dysfunction; after treatment at our institute improved her liver function, she successfully underwent cholecystectomy at a local hospital in Tianjin.

Conclusion

This case demonstrates the potential of combined Chinese-Western medicine in treating end-stage cirrhosis with massive ascites, with 24-year survival without recurrence. The concept of recompensation may provide a framework for understanding this outcome.

1. Introduction

End-stage cirrhosis is characterized by portal hypertension, massive ascites, and progressive liver failure. Once decompensation occurs, the prognosis is poor, with a 5-year mortality rate of 45%–85% and a median survival of only 1–2 years. Ascites is the most frequent complication of cirrhosis, and its management includes dietary sodium restriction, diuretics, and large-volume paracentesis (LVP) with albumin infusion. However, these treatments are primarily palliative, and liver transplantation remains the only definitive therapy for eligible patients.

The concept of “recompensation” has recently emerged, referring to the disappearance of decompensating events, improvement in liver function, and sustained control of the underlying etiology. Recompensation is associated with improved transplant-free survival and a reduced risk of liver-related death. Here, we report a case of end-stage cirrhosis with massive ascites that achieved sustained recompensation after combined Chinese-Western medicine treatment, with 24-year follow-up confirming continued health.

This case is part of a long-term clinical observation series on refractory diseases at Beijing Pingshantang Institute of Refractory Diseases. Each case is reported independently because it represents a distinct disease entity, treatment course, and long-term follow-up. The series aims to share these rare and independent observations with the global medical community.

2. Case Presentation

A patient with a history of end-stage cirrhosis presented with massive ascites on December 7, 2002.

Pre-treatment assessment:

The patient had massive ascites that had been refractory to treatment at multiple tertiary hospitals in Hebei Province (including Chengde and Shijiazhuang). Despite repeated paracentesis and diuretic therapy, the ascites did not resolve and continued to accumulate. On December 7, 2002, 10,500 mL of ascites was drained within 24 hours, with an estimated residual volume of 15,000–20,000 mL. To our knowledge, this is the largest 24-hour ascites drainage volume reported in a patient with cirrhosis. The patient's abdominal photograph after drainage, which still showed marked distension, is preserved in the medical record. Laboratory tests showed: ALT 29 U/L, AST 43 U/L, GGT 59 U/L, ALP 98 U/L, total bilirubin 39 µmol/L, direct bilirubin 8.2 µmol/L, indirect bilirubin 30.8 µmol/L, total protein 51 g/L, albumin 26 g/L, globulin 25 g/L, cholinesterase 6399 U/L, HBV-DNA 2.35×10^4 copies/mL, HBsAg positive, anti-HBe positive, anti-HBc positive. Abdominal ultrasound revealed cirrhosis, splenomegaly, and massive ascites.

Treatment:

The patient received combined Chinese-Western medicine treatment based on syndrome differentiation from December 7, 2002, to November 30, 2003. Due to financial constraints, the patient was discharged on day 3 of treatment with medication and continued treatment as an outpatient. Within 36 days of treatment, ascites completely resolved.

Post-treatment assessment:

On November 30, 2003, laboratory tests showed: ALT 39 U/L, AST 33 U/L, GGT 49 U/L, ALP 92 U/L, total bilirubin 15 µmol/L, direct bilirubin 2.2 µmol/L, total protein 65 g/L, albumin 43 g/L, cholinesterase 9399 U/L, HBV-DNA $< 5 \times 10^2$ copies/mL. Ultrasound showed resolution of ascites, reduction in spleen size (thickness from 6.2 cm to 4.1 cm; subcostal length from 13.6 cm to 12.1 cm), decrease in portal vein diameter from 1.5 cm to 1.2 cm, and decrease in splenic vein diameter from 1.4 cm to 0.8 cm. Liver fibrosis markers improved.

Follow-up:

The patient remained healthy for 24 years. In February 2019, she developed acute cholecystitis with multiple gallstones and severe liver dysfunction. Laboratory tests on February 4–7, 2019, showed total bilirubin 478.60 µmol/L, direct bilirubin 337.00 µmol/L, ALT 38 U/L, AST 65 U/L, albumin 34.5 g/L,

prothrombin activity 69.4%, white blood cells $1.34 \times 10^9/\text{L}$, and platelets $35 \times 10^9/\text{L}$. Abdominal ultrasound revealed cirrhosis, a 44-mm gallstone, splenomegaly (65×198 mm), and splenic vein dilatation (20 mm). FibroScan showed a liver stiffness of 25.7 kPa. She was initially managed at several hospitals in Tianjin, where surgery was deferred due to poor liver function. During continued treatment at our institute, laboratory tests on February 15, 2019, showed total bilirubin 486.2 $\mu\text{mol/L}$, direct bilirubin 457.5 $\mu\text{mol/L}$, albumin 29.5 g/L, and prothrombin activity 34.6%, indicating that the patient was not yet a surgical candidate because of the extremely high perioperative risk. After further combined Chinese-Western medicine treatment, her liver function improved sufficiently to allow successful cholecystectomy at a local tertiary hospital in Tianjin. According to telephone follow-up in 2021 and 2022, she remained in good health.

Written informed consent for publication was obtained from the patient.

3. Discussion

3.1 Reversal of End-Stage Cirrhosis with Massive Ascites

This case demonstrates the potential of combined Chinese-Western medicine in reversing end-stage cirrhosis with massive ascites. The patient had over 10,500 mL of ascites drained in 24 hours and an estimated residual volume of 15,000–20,000 mL, yet achieved complete ascites resolution within 36 days and sustained health for 24 years. To our knowledge, this is the largest 24-hour ascites drainage volume reported in a patient with cirrhosis. This outcome is notable given the poor prognosis typically associated with decompensated cirrhosis.

3.2 Integrative Therapeutic Strategy and Safety Considerations

The drainage of more than 10,500 mL of ascites within 24 hours is associated with substantial risks, including electrolyte imbalance, hypovolemic shock, and cardiovascular instability. Conventional guidelines generally recommend limited-volume paracentesis or albumin infusion to mitigate these risks [1]. In this case, an integrative Chinese-Western medicine strategy was employed. Electrolyte-containing fluids were administered before and during drainage to maintain intravascular volume and electrolyte homeostasis. A large residual volume of ascites was intentionally left in the peritoneal cavity, which may have helped maintain intra-abdominal pressure and reduce the risk of rapid fluid shifts. Chinese herbal medicine, with its multi-target characteristics, was combined with standard diuretics (spironolactone and furosemide) to support diuresis and maintain internal homeostasis. After discharge, the patient's daily urine output was approximately 3000 mL; diuretics were discontinued once ascites completely resolved and urine output normalized. This integrative approach—combining the strengths of Western diuretics with the multi-target regulatory effects of Chinese herbal medicine—may have contributed to the safe and effective management of this extreme case.

3.3 Sodium Management and Fluid Homeostasis

Conventional guidelines often recommend strict dietary sodium restriction for patients with cirrhotic ascites. However, severe sodium restriction can induce or exacerbate hyponatremia, leading to poor appetite, malnutrition, and activation of the renin-angiotensin-aldosterone system (RAAS), which may paradoxically worsen fluid retention [3, 4]. In this case, we did not strictly restrict the patient's dietary salt intake. Instead, we focused on maintaining electrolyte homeostasis through an integrative approach. By combining Western diuretics (spironolactone and furosemide) with Chinese herbal medicine, we aimed to achieve a balanced diuretic effect while preserving intravascular volume and serum sodium levels. This strategy, along with the intentional retention of residual ascites to maintain intra-abdominal pressure, may have contributed to the safe resolution of massive ascites without inducing severe hyponatremia or hypovolemic shock.

3.4 The Theoretical Framework of New Chinese New Medicine

This case was managed under the theoretical framework of “New Chinese New Medicine,” which emphasizes a holistic, syndrome-differentiation-based approach aimed at restoring the body’s intrinsic regenerative capacity. Clinically, symptomatic treatments—including diuretics, paracentesis, and massive albumin supplementation—are incapable of fundamentally resolving the issue of reversing end-stage cirrhosis; these interventions merely alleviate complications and fail to halt the underlying pathological progression. From a pathophysiological perspective, the effective hydrolysis of established fibrous tissue within the liver and the promotion of orderly hepatocyte regeneration are the essential prerequisites for the fundamental reversal of cirrhosis. The complete resolution of refractory massive ascites and the sustained normalization of liver function in this patient are consistent with this theoretical framework. While the precise molecular mechanisms remain to be elucidated, the clinical outcomes provide preliminary support for the potential of this integrative approach.

3.5 Recompensation as a Framework

The concept of recompensation provides an appropriate framework for understanding this case. According to the Baveno VII consensus, recompensation is defined as the removal or suppression of the underlying etiology, resolution of decompensating events without ongoing medical therapy, and sustained improvement in liver function [3]. This patient met all criteria: the underlying biliary obstruction/infection was controlled, ascites completely resolved without long-term diuretic dependence, and liver function remained stable for over 24 years.

Notably, this patient had experienced a prior episode of decompensation in 1992 secondary to acute cholecystitis and gallstones, which was also successfully reversed. The current episode in 2002–2003 represents a second successful recompensation. The ability to achieve and sustain recompensation after a second decompensation event, with 24-year durability, is highly unusual and underscores the potential of the therapeutic approach.

3.6 The 2019 Cholecystitis Episode

The 2019 episode of cholecystitis and gallstones, with significant liver function deterioration, represents a transient decompensation event. The patient was not a surgical candidate at initial presentation, but after continued treatment, her liver function improved sufficiently to allow successful surgery. Her recovery further supports the durability of the initial recompensation.

3.7 Limitations

This is a single-case report, and the findings require validation in larger prospective studies. Detailed medical records from the 2019 cholecystectomy were not available. Long-term follow-up data were partly based on patient-reported information. The mechanisms underlying the observed reversal warrant further investigation. The specific composition of the Chinese herbal formula was not disclosed due to intellectual property considerations.

4. Conclusion

This case demonstrates the potential of combined Chinese-Western medicine in treating end-stage cirrhosis with massive ascites, with sustained 24-year survival without recurrence. Further studies are warranted to validate these findings and explore the underlying mechanisms.

Declarations

Ethics Statement

This study is a retrospective case report conducted in accordance with the Declaration of Helsinki. Written informed consent for publication was obtained from the patient. All clinical data have been thoroughly anonymized to protect patient privacy. The Chinese herbal medicines used are derived from traditional Chinese medicinal materials that have been used for thousands of years. All physical therapies use medical devices approved by the National Medical Products Administration.

Use of AI-assisted tools

The authors used AI-assisted tools for language editing and translation only. All clinical data, analysis, and conclusions are the original work of the authors.

Conflicts of Interest

The author declares no conflicts of interest.

Data Availability Statement

The clinical data supporting this case report are stored in the medical records archive of Beijing Pingshantang Institute of Refractory Diseases. Due to patient privacy and intellectual property considerations, the raw data are not publicly available but can be made available to qualified researchers upon reasonable request, subject to ethical approval.

References

1. Asrani SK et al (2025) AGA Clinical Practice Update on the Management of Ascites, Volume Overload, and Hyponatremia in Cirrhosis. *Expert Rev Gastroenterol.* ;169(7)
2. Chinese Society of Integrated Traditional and Western Medicine (2025) Expert consensus on the diagnosis and treatment of cirrhotic ascites with integrated Chinese-Western medicine (in Chinese).
3. de Franchis R et al (2022) Baveno VII - Renewing consensus in portal hypertension. *J Hepatol* 76(4):959–974
4. Biggins SW et al (2021) AASLD Practice Guidance on the management of ascites, spontaneous bacterial peritonitis, and hepatorenal syndrome in cirrhosis. *Hepatology* 74(2):1014–1048
5. Bernal W, Wendon J (2013) Acute liver failure. *N Engl J Med* 369(26):2525–2534
6. European Association for the Study of the Liver (2017) EASL Clinical Practice Guidelines: Management of chronic hepatitis B virus infection. *J Hepatol* 67(2):370–398
7. Wanless IR et al (2000) Regression of human cirrhosis. *Arch Pathol Lab Med* 124(11):1599–1607
8. Servin-Abad L et al (2006) The Treatment of Hepatic Fibrosis: Reversal of the Underlying Disease Process. *Gastroenterol Hepatol* 2(11):819–825