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**Still 'Dwelling in the Possibility' - Critical Update on Stem Cell Therapy for Acute on Chronic Liver Failure**

**Stem Cell Therapy for ACLF**

#### Abstract

Stem cells could improve survival in patients with liver failure. Studies on stem cell therapy and related growth factors in decompensated cirrhosis has been on the forefront but has shown heterogenous results. Recent high-quality studies have shown a lack of efficacy and safety. <sup>15</sup> Patients with acute chronic liver failure (ACLF) are a unique group with high mortality in the short-term associated with rapid onset extrahepatic organ failures. In these patients, there is an urgent need to identify treatments that can improve liver cell function and mass, prevent sepsis/organ failure, ameliorate systemic inflammation, and increase transplant-free survival. Stem cells are a novel treatment in ACLF but with unclear efficacy and safety. In this narrative review, we discuss the basics of liver regeneration in patients with ACLF and update current clinical status of stem cell use in patients with ACLF for improving our understanding of future directions.

**Key Words:** Portal hypertension; Regenerative therapy; Mesenchymal stem cells; Liver

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**Cited by:** 4

**Author:** Kirshma Khemani, Deeksha Katoch, Laksh...

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<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2687053>

Feb 14, 2008 · Before considering **acute liver failure** for **stem cell therapy**, it would be necessary to achieve a performing banking of functional hepatocyte-like **cells**. Globally, the **possibility** of repeated **cell** infusions could render **cell therapy** advantageous over OLT in patients whose disorder is not life-threatening (ex: Crigler-Najar patients).

Cited by: 109

Author: Philippe A Lysy, David Campard, François...

Publish Year: 2008

## Mesenchymal Stem Cells for Liver Regeneration in Liver ...

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Finally, in cases of **acute-on-chronic liver failure**, as in the case of **acute liver failure**, patients present a severe short-term prognosis, which limits their survival as well as the period of time necessary for **cell** replacement to take place effectively, so extrinsic MSC **therapy** and exquisite timing to be administered must be taken into account.

Cited by: 11

Author: Maria P. de Miguel, I. Prieto, A. Moratilla, ...

Publish Year: 2019

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