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The role of bone marrow-derived mesenchymal stem cells as a therapeutic measure in autoimmune hepatitis induced by ConA**Najiah Gulam Sultan***King Abdulaziz University, Saudi Arabia*

An autoimmune disease that is becoming more common worldwide is autoimmune hepatitis. The therapy choices for AIH are still limited, and the common medications' unfavorable side effects commonly result in patients with low quality of life. A well-known method widely used for inducing autoimmune hepatitis (AIH) in mice that replicates the pathogenic changes that take place in humans is concanavalin A (ConA). Pluripotent stem cells with a low immunogenicity mesenchymal stem cells (MSCs) are easily collected. MSCs-based therapy is emerging as a viable strategy for treating liver illnesses based on its benefits. As a form of mesenchymal stem cell, bone marrow-derived stem cells (BM-MSCs) have demonstrated tremendous promise in the treatment of numerous disorders. The liver function and level of inflammation were then assessed by measuring the serum levels of ALT and AST the pathologic modification of liver tissue. Serum levels of the enzymes alanine aminotransferase (ALT) and aspartate aminotransferase (AST) and H&E staining showed that the use of BM-MSCs might reduce the severity of hepatitis caused by ConA. While BM-MSCs could reduce the percentage of ConA-induced macrophages in the liver tissue, the proportions of CD68 cell macrophages were elevated by ConA injection. Although injection of 2×10^6 MSCs efficiently reduced ConA-induced hepatitis after 12 days, this had no significant effect after 18 days. Therefore, maybe twice as many BM-MSCs or second doses were required to alleviate ConA-induced hepatitis. Our results revealed that even if there is a considerable short-term improvement, a single injection might not achieve a steady long-term therapeutic benefit

Biography

Najiah Gulam Sultan is a biology graduate with first-class honors from Umm Al-Qura University. Currently pursuing a master's in Zoology at King Abdulaziz University with proficiency in International Computer Driving.