

Impact of Intra-gastric Balloon in Non-Alcoholic Fatty Liver Disease

Annie Shergill* and Luis Nasiff

Larkin Community Hospital, Palm Springs Campus, Hialeah, FL, USA

***Corresponding author**

Annie Shergill, Larkin Community Hospital, Palm Springs Campus, Hialeah, FL, USA.

Received: February 09, 2024; **Accepted:** February 10, 2024; **Published:** February 12, 2024

Non-Alcoholic Fatty Liver Disease (NAFLD) is one of the most common causes of chronic liver disease worldwide. In the absence of any pharmacologic therapy, weight loss remains central to bring about improvement in hepatic steatosis in patients with NAFLD. Endoscopic bariatric and metabolic therapies are now at the frontier of minimally invasive weight loss procedures that can help patients with NAFLD. Intra-gastric balloon placement essentially involves endoscopic placement of a saline filled silicone balloon in the stomach which stimulates a feeling of fullness and subsequently helps with weight loss.

A retrospective study assessed the effects of a fluid filled intra-gastric balloon in a cohort of obese patients who had advanced fibrosis (liver stiffness of > 9.7kPa) [1]. Exclusionary criteria entailed patients with portal hypertension. Liver parameters were then assessed over a 6-month period. Significant weight loss and waist circumference reduction was seen in all patients at 6 months. Also seen were reduction in blood glucose levels, hemoglobin A1C and liver stiffness and fibrosis parameters. The study concluded that patients with NAFLD, obesity and particularly those with advanced fibrosis can achieve reduction in fibrosis by virtue of significant, consistent weight loss resulting from intra-gastric balloon placement.

A prospective study enrolled 56 patients with non-alcoholic steatohepatitis (NASH) cirrhosis with body mass index of more than 30, who were unable to undergo weight loss with lifestyle modifications [2]. These patients underwent endoscopic placement of adjustable intra-gastric balloon. The results of the study were positive- there was an absolute weight reduction of 15.8 kg and reduction in BMI was approximately 10% at 6 months. There was an 11.2% reduction in the hepatic venous pressure gradient. Mean reduction in the liver stiffness measurement was 28.6% and in controlled attenuated parameter was 10.09%. Three patients required removal of the balloon before 6 months due to vomiting. No serious adverse events or decompensation

reported. This study showed promising results and potential in obese patients with cirrhosis. This study emphasizes on a crucial issue- that even in patients with cirrhosis, intra-gastric balloon induced weight loss can bring about a remarkable change in numerous parameters.

As we await future prospective studies of large size to validate the above-mentioned results, intra-gastric balloon placement has proven to be a safe and effective weight loss method for obese patients with NAFLD thus far.

References

1. Salomone F, Currenti W, Magrì G, Boškoski I, Zelber-Sagi S, et al. Effects of intragastric balloon in patients with nonalcoholic fatty liver disease and advanced fibrosis. *Liver Int.* 2021. 41: 2112-2116.
2. Vijayaraghavan R, Sarin SK, Bharadwaj A, Anand L, Maiwall R, et al. Intra-gastric Balloon in Obese Compensated Nonalcoholic Steatohepatitis Cirrhosis Patients Is Safe and Achieves Significant Weight Reduction at 6-Months. *Dig Dis Sci.* 2023. 68: 1035-1041.

Copyright: © 2024 Annie Shergill, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Citation: Annie Shergill, Luis Nasiff. Impact of Intra-gastric Balloon in Non-Alcoholic Fatty Liver Disease. *J Clin Res Case Stud.* 2024. 2(1): 1-1.
DOI: doi.org/10.61440/JCRCS.2024.v2.29