



## Reducing the Risk in Liver Failure and their Role in Platelet Count

Mohamed Shazly\*

Department of Hepatology, Alfaisal University, Riyadh, Saudi Arabia

### DESCRIPTION

Major Hepatectomy is a complex surgical procedure that involves the removal of a large portion of the liver. While this procedure can be curative for patients with liver cancer or other liver diseases, it also carries a significant risk of postoperative liver failure. In recent years, researchers have explored the use of preoperative imaging and laboratory tests to predict the risk of liver failure after major hepatectomy. One promising approach is the use of Future Liver Volume (FLV) combined with platelet count to predict postoperative liver failure.

#### FLV and liver function

FLV is a measure of the volume of liver tissue that will remain after a major hepatectomy. This parameter is typically calculated using preoperative imaging studies, such as CT or MRI. FLV is an important predictor of postoperative liver function, as it reflects the remaining functional liver tissue that can compensate for the loss of the resected liver.

#### Platelet count and liver function

Platelet count is a commonly used laboratory test to assess liver function, as the liver plays a key role in the production and clearance of platelets. A low platelet count can indicate impaired liver function, such as cirrhosis or portal hypertension. Additionally, platelet count has been shown to be a predictor of postoperative liver failure after major hepatectomy.

#### Combined use of FLV and platelet count

Several studies have investigated the combined use of FLV and platelet count to predict postoperative liver failure after major hepatectomy. In a study of 218 patients undergoing major hepatectomy for liver cancer, researchers found that the combination of FLV and platelet count was a strong predictor of postoperative liver failure. Patients with a low FLV and low platelet count had a significantly higher risk of postoperative

liver failure, while patients with a high FLV and high platelet count had a low risk of postoperative liver failure.

Another study of 150 patients undergoing major hepatectomy for liver cancer found similar results, with the combination of FLV and platelet count was being a strong predictor of postoperative liver failure. Additionally, the authors found that the combination of FLV and platelet count was superior to other preoperative predictors of postoperative liver failure, such as liver function tests or radiological scores.

#### Clinical implications

The use of FLV and platelet count to predict postoperative liver failure has important clinical implications. First, this approach can help identify patients who are at high risk of postoperative liver failure, allowing for more intensive preoperative preparation and postoperative monitoring. For example, patients with a low FLV and low platelet count may benefit from preoperative optimization of liver function, such as medical management of portal hypertension or nutritional support.

Second, the combination of FLV and platelet count can help guide surgical decision-making. In cases where the estimated FLV is low and the platelet count is also low, the surgeon may consider alternative surgical approaches, such as staged resection or liver transplantation.

### CONCLUSION

While the combination of FLV and platelet count shows promise as a predictor of postoperative liver failure, there are several limitations to this approach. First, the accuracy of FLV measurement can be influenced by a variety of factors, such as imaging technique or patient factors (such as obesity or ascites). Additionally, platelet count can be influenced by a variety of factors, such as medications or underlying medical conditions.

Future research is needed to refine the use of FLV and platelet count involving in predicting postoperative liver failure by the

**Correspondence to:** Mohamed Shazly, Department of Hepatology, Alfaisal University, Riyadh, Saudi Arabia, E-mail: zly@riy.com

**Received:** 02-Mar-2023, Manuscript No. JLR-23-21037; **Editor assigned:** 06-Mar-2023, Pre QC No. JLR-23- 21037 (PQ); **Reviewed:** 20-Mar-2023, QC No JLR-23-21037; **Revised:** 27-Mar-2023, Manuscript No. JLR-23- 21037 (R); **Published:** 03-Apr-2023, DOI: 10.35248/2167-0889.23.12.171

**Citation:** Shazly M (2023) Reducing the Risk of Liver Failure and their Role in Platelet Count. J Liver. 12:171

**Copyright:** © 2023 Shazly M. 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.

use of other imaging modalities, such as MRI with liver-specific contrast agents may improve the accuracy of FLV measurement.