In Person + Live Streaming
TTS 2024 ISTANBUL TURKEY
September 22-25
+ Virtual October 21-23
Organized in partnership with
Endorsed by

Analysis of the relationship between the MELD Scores and intraoperative LRRBC consumption in LDLT surgery at First Central Hospital of Mongolia

G. Odonchimeg[1], R. Bazarragchaa[1], L. Bolormaa[1], P. Enhdelger[1], D. Chuluunbaatar[1], L. Ganbold[2], H. Bayalagmaa[1]
[1]Liver Transplantation Center, First Central Hospital of Mongolia,
[2]Mongolian National University of Medical Sciences
Email: odonchimeg7045@gmail.com

Introduction:

- About 2 million people die from liver disease every day in the world.
- In Mongolia, 2305 people died in 2023 due to liver cirrhosis and cancer.
- An essential treatment for end-stage liver disease is liver transplantation. In our country, this surgery has been performed since 2011, and in recent years, the resources and skills of specialists have been growing, as evidenced by the number of surgeries performed annually.
- As of the first half of this year, approximately 55 liver transplant operations were performed, while total of over 420 operations were performed since 2011.
- We need to calculate and prepare sufficient reserves of blood products to be used during surgery is inevitable for the surgery and anesthesia team. The lack of this type of research in our country is the basis for our research.

Analysis of the relationship between the MELD Scores and intraoperative LRRBC consumption in LDLT surgery at First Central Hospital of Mongolia

Objective:

To study the use of LR-RBC during liver transplantation:

1. Comparative study of the use of LR-RBC during liver transplantation by diagnosis group

2. To investigate whether there is a relationship between the use of LR-RBC and the recipient's MELD score

Methods:

The study was conducted retrospectively. From a total of 53 patients who received liver transplantation from a living donor at the State First Central Hospital between 2022.12.23 and 2023.12.20, data of 50 patients who met the criteria for inclusion in the study were sampled.

Statistical processing was carried out using the "STATA 14" program.

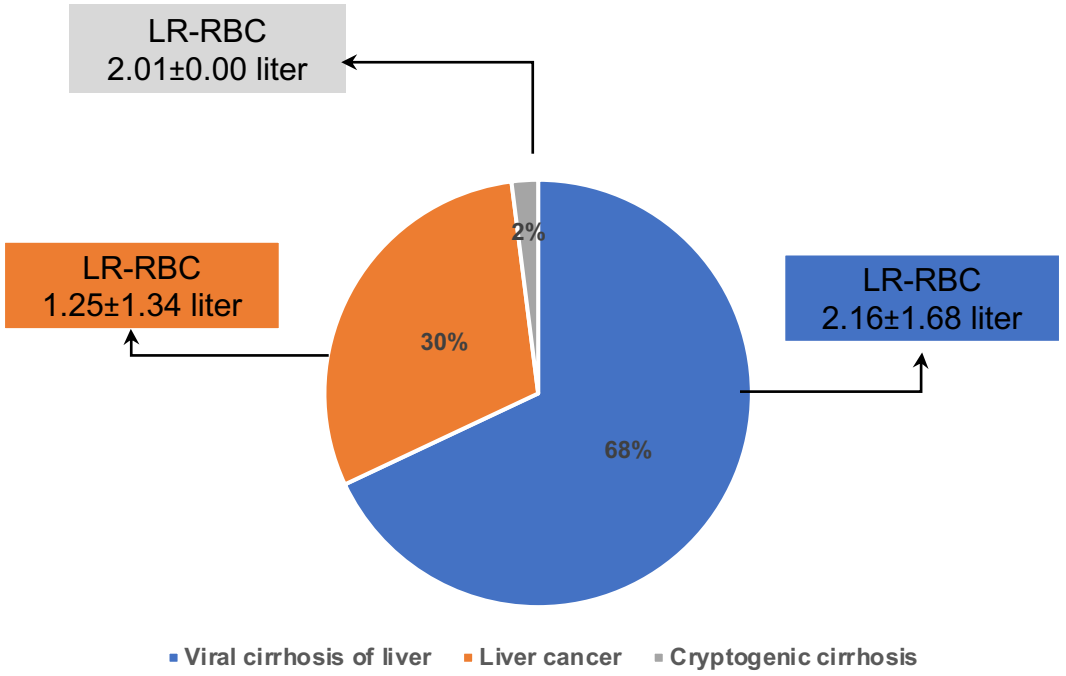
Permission to conduct the research was obtained from the liver transplantation team of FCHM, and ethical norms were followed, respecting the confidentiality of the patient.

Analysis of the relationship between the MELD Scores and intraoperative LRRBC consumption in LDLT surgery at First Central Hospital of Mongolia

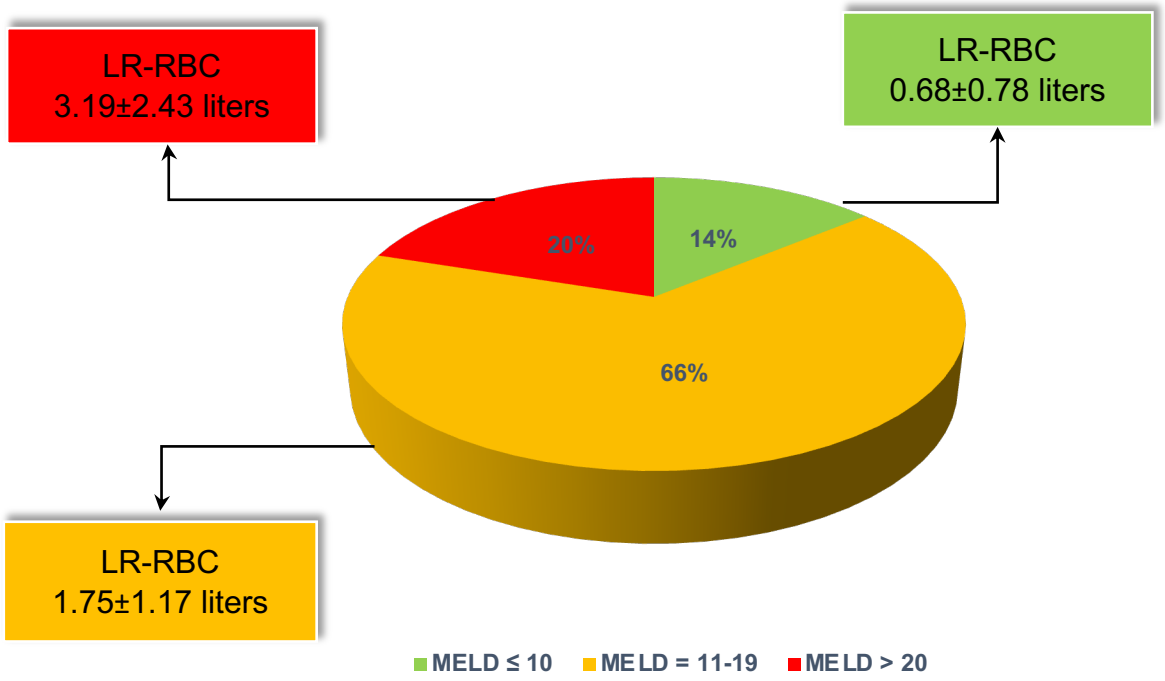
Result:

The average age of the patients included in the study was 48.0±8.8, the youngest was 34 years old, and the oldest was 66 years old. In terms of gender, 58% (n=29) were female and 42% (n=21) were male.

Objective 1: Comparison of LR-RBC use by diagnostic group during liver transplantation:



Objective 2: The relationship between LR-RBC use and MELD score during liver transplantation was investigated:



Result:

There is a significant direct correlation (Pearson correlation coefficient r=0.52) between the MELD score of the studied patients and the amount of LR-RBC transfused during surgery.

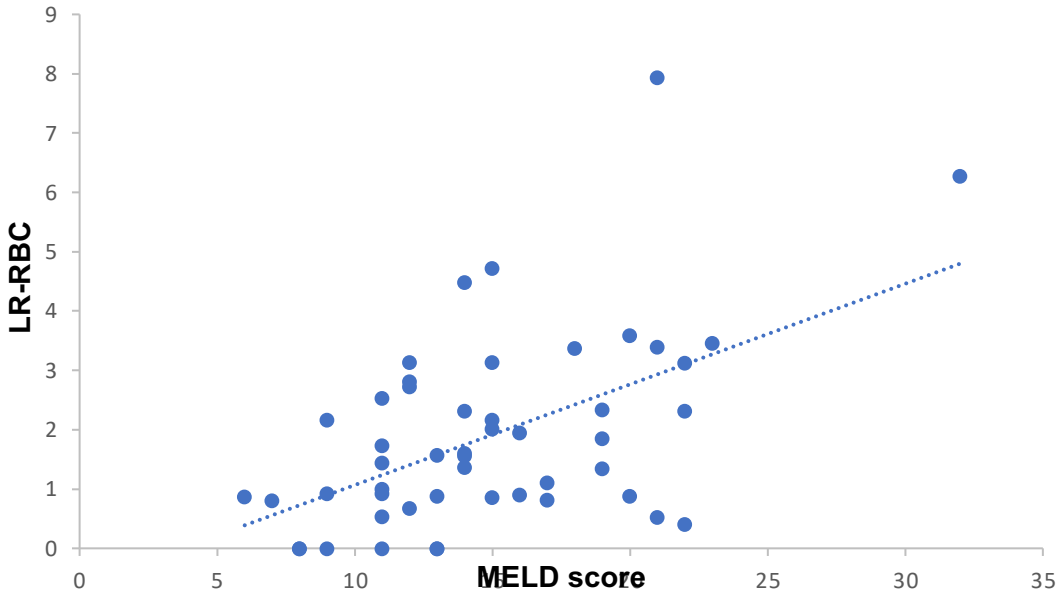


Figure 1. Correlation between MELD score and volume of LR-RBC transfused during surgery (r=0.52)

Discussion:

- The use of transfused blood products during liver transplantation was directly related to the patient's end-stage evaluation of the liver (MELD score) in relation to other factors.
- Other of the key indicators for calculating the MELD score are INR, platelet count, and duration of surgery, and in our next study, we can investigate whether there is a correlation between some parameters of the MELD score and blood products transfused during surgery.
- Therefore, it is necessary to study the possible factors that predict the amount of blood and blood products to be transfused during the operation in patients undergoing liver transplantation.

Analysis of the relationship between the MELD Scores and intraoperative LRRBC consumption in LDLT surgery at First Central Hospital of Mongolia

Conclusion:

1. LR-RBC transfused during liver transplantation in patients diagnosed with liver cancer is lower than the amount of LR-RBC transfused in patients with viral cirrhosis.
2. The use of LR-RBC during living donor liver transplantation is directly related to the patient's MELD score.

Analysis of the relationship between the MELD Scores and intraoperative LRRBC consumption in LDLT surgery at First Central Hospital of Mongolia