

## Perioperative use of IgM enriched -immunoglobulins in liver transplantation recipients at high risk for infections.

**E. Roat<sup>1</sup>, G. Chierago<sup>1</sup>, M. Tosi, F. Di Benedetto<sup>2</sup>, M. Girardis<sup>1</sup>**

1 Intensive Care Unit, Modena University Hospital, L.go del Pozzo 71, 41100 Modena, Italy

2. Liver transplantation unit, Modena University Hospital, L.go del Pozzo 71, 41100 Modena, Italy

**Study objective:** Postoperative infections are the most frequent causes of early mortality in liver transplantation (LT) recipients. This preliminary study aimed to evaluate the effects of perioperative administration of intravenous IgM-enriched immunoglobulins (IgM) in recipients considered at high risk for infections after LT.

**Methods:** The use of perioperative IgM therapy in high-risk recipients has been introduced in the LT protocol of our centre since 2017. High risk for post-LT infections was considered for at least one of the following: pre-OLT colonization by a multidrug-resistant (MDR) bacteria, admission in intensive care unit within 30 days before LT, broad-spectrum antibiotic therapy (at least 4 days) within 30 days before LT. IgM therapy started during LT and continued for 24 hours with a total dose of 150 mg/Kg. In this retrospective analysis, we included 29 recipients who received IgM therapy with 22 historical recipients (2014-2016) with the same risk factors for bacterial infections. The primary outcome was the occurrence of new infections in the 30 days after LT.

**Measurements and main results:** The 2 groups were similar for pre-LT conditions except for lower incidence of HCV infection (13,8% vs 40,9%  $p=0,03$ ) and higher incidence of pre-operative MDR infections (48,3% vs 9,1%  $p=0,005$ ) in IgM treated patients compared to historical controls. In IgM treated patients the occurrence of new infections after LT (27,6%) was lower ( $p = 0,02$ ) than in non-treated patients (59,1%). Similarly, the mortality at 90 days was lower in treated recipients (0,0% vs 14%,  $p = 0,04$ )

**Conclusion:** This retrospective analysis indicates that the perioperative administration of IgM in LT recipients at high risk may reduce the occurrence of infections in the 30 days after LT.

### Incidence of post-OLT infections (30

