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OC-23

SARS-CoV-2 infection in liver transplantation is associated with favorable outcomes: an Italian transplant registry study

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Background and aims: Solid organ transplant recipients (SOTRs) have been considered as an extremely vulnerable population in respect to SARS-CoV-2 infection. We aimed to assess the incidence and lethality rate of SARS-CoV-2 infection in different organ transplant settings using the liver as a comparator.

Methods: In this nationwide population-based study we compared the crude incidence and lethality rates of SARS-CoV-2 infection [95% Bonferroni adjusted CI (Ba-CI)] among Italian LTRs as compared to non-liver SOTRs and to general population. The following independent groups had been compared: Italian general population, all SOTRs, liver transplant recipients (LTRs) and non-Liver SOTRs in area with different incidence of infection. Incidence rate ratio (IRR) and lethality rate ratio (LRR) was assessed. Community risk exposures in transplant settings were assessed.

Results: From February 21 to June 22, 2020, there were 450 cases of SARS-CoV-2 infections over 14168 LTRs (n=89) and 29815 non-liver SOTRs (n= 361). A significantly lower risk of infection [IRR 0.56 (Ba-CI 0.34-0.92), 0.45 (Ba-CI 0.26-0.79), 0.52 (Ba-CI 0.36-0.75)] and a lower lethality rate ratio [(LRR 0.61 (Ba-CI 0.23-1.57), 0.37 (0.08-1.76), 0.52 (0.23-1.18)] was found among LTRs as compared to non-liver SOTRs in the three areas. Excluding Lombardy, the risk of infection and lethality in LTRs was lower compared to general population. Non-Liver SOTRs showed an increased risk of infection and lethality at all geographic levels compared to general population. No significant difference in the adherence to mitigation policies was found.

Conclusions: Liver transplantation was associated with a significantly lower risk of SARS-CoV-2 infection and lethality in respect to non-liver solid organ transplants. A separate evaluation of organ-specific risk stratification analysis and vaccination responses in transplant population is needed.

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OC-24

Long-term outcomes in pediatric liver transplantation: a single center 20 years- experience

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Introduction: Liver transplantation (LT) in pediatric age is a relatively recent reality with limited information about long-term natural history.