in 11/14 (78.5%) cases, severe acute liver failure (ALF) in 5 cases, due to massive VOC in 4 cases and autoimmune hepatitis in 1 case. Five patients were transplanted electively: cirrhosis without ACLF in 3 cases (12.5%) (HCV 2, alcoholic hepatitis on cirrhosis 1), sclerosing cholangitis (SC) (8.5%) in 2 cases, with mild intrahepatic vaso-occlusive injury in 3 cases. Among patients with ACLF, 3 patients were ACFL grade 2, and 9 (64%) grade 3, with a median number of organ failures of 3; the underlying liver disease consisted of chronic SCD-related liver hepatopathy in 11/14 cases (71.5%).
The median MELD score at LT was 37.4, reaching 40 in ACLF patients. Median bilirubin was 700, 553, and 293 μmol/L, in ACLF, ALF and elective patients, respectively. 16 patients (67%) received induction immunosuppression. The incidence of acute cellular rejection was 13%. Six patients (25%) developed serious neurological complications (seizures 4 and/or PRES syndrome 3). Postoperative mortality was 0, 20% and 30% in elective patients, ALF and ACLF. The 5-year overall survival was 63%, ranging from 100% in elective patients to 60 and 50% in patients transplanted in ALF and ACLF. With a median post LT Fu of 6.4 years, a liver biopsy was performed in 10/19 patients beyond the 3rd month post LT because of liver lab tests suggestive of rejection. The recurrence of VOC injury was observed in 8/10 cases, significant graft fibrosis, F2/F3, in 4 cases (HCV 1 case). Recurrent SCD vaso-occlusive injury in the graft justified a preventive strategy combining transfusion exchanges and/or hydroxurea, with HbS target <30%.
Conclusion: This largest worldwide series of LT for SCDH shows that severe intrahepatic VOC causes ALF or ACLF in 75% of cases. Associated organ failures account for results inferior to those observed in other indications. In this rare indication, LT was associated with a reasonable 60% 5-year survival yet, transforming the prognosis of severe SCDH. LT should therefore be considered in expert multidisciplinary centers as a treatment option for SCDH. Identification of ACFL patients at high risk of post-operative death should be improved.

SAT270

Post-operative complications and short-term survival in obese cirrhotic patients undergoing liver transplantation

Javier Tejedor-Tejada[1], Carmen Alonso Martin[1], Samuel Juan Fernández Prada[1], Laura Juan[1], Violeta Mauriz[2], Abdelaleem Helal[3], Rifaat Safadi[4], Esteban Fuentes Valenzuela[1], Carolina Almohalla[1], Félix García Pajares[1]. [1]*Hospital Universitario Rio Hortega, Department of Gastroenterology, Hepatology and Liver Transplantation Unit, Spain;* [2]*Complejo Hospitalario Universitario de Santiago de Compostela, Department of Gastroenterology, Spain;* [3]*National Liver Institute, Menoufia University, Hepatology and Gastroenterology Department, Egypt;* [4]*Hadassah Medical Organization, Hadassah Hebrew University Medical Centre, The Liver Unit, Israel*
Email: jtejedor1991@gmail.com

Background and aims: Obesity is considered a risk factor for perioperative complications, but its effect on patients undergoing liver transplantation (LT) remains unclear. This study was conducted to analyze the impact of the body mass index (BMI) on morbidity and mortality risk following LT.
Method: A multicenter study of outcomes in patients submitted to LT between 2001 and 2019. Recipients were stratified in obese (BMI ≥30 kg/m^2) and non-obese patients (BMI <30 kg/m^2). The following exclusion criteria were considered: Patients with no BMI available, refractory ascites, polycystic liver disease or multiorgan transplantation. Post-LT outcomes and 1-year patient and graft survival were compared.
Results: A total of 1410 patients were included in the study, non-obese (989, 70.1%) and obese patients (421, 29.9%). There were not significant differences in Charlson comorbidity score, race, MELD, waiting time, total ischemia time, length of stay, ICU stay (Table 1). The rate of postoperative vascular and biliary complications were significantly higher in the obese recipients (23.3%, p 0.015 and 36.6%, p <0.01) versus the non-obese recipients (17% and 27.1%). There was a significantly increased risk for long-term graft failure. However, There was no difference in patient survival after LT.

	Non-obese N= 989	Obese N= 421	*P value*
Sex (male/female)	745/244	337/84	P= 0.063
Age (years), mean (SD)	53.9 (10.4)	55.4 (8.8)	P= 0.012
BMI (Kg/m2), mean (SD)	25.1 (3.1)	33.6 (3.2)	P < 0.001
Waiting list (days), mean (SD)	134 (323)	141 (345)	P= 0.718
Charlson comorbidity score, mean (SD)	2.4 (1.3)	2.7 (1.3)	P= 0.803
MELD score, mean (SD)	16.02 (6.7)	16.76 (6.6)	P= 0.884
Total ischemia time (minutes), mean (SD)	445.7 (136.5)	446.7 (142.8)	P= 0.909
Vascular complications (%)	168 (17%)	98 (23.3%)	P= 0.015
Biliary complications (%)	268 (27.1%)	154 (36.6%)	P= 0.002
Infectious complications (%)	257 (26%)	130 (30.9%)	P= 0.171
Postoperative bleeding (%)	121 (12.2%)	59 (14%)	P= 0.517
Ischemia-Reperfusion-Injury (%)	156 (15.7%)	47 (11.2%)	P= 0.08
Primary graft non-function (%)	91 (9.2%)	31 (7.4%)	P= 0.041
Acute rejection (%)	96 (9.7%)	54 (12.8%)	P= 0.178
Death			
• < 30 days	76 (7.7%)	33 (7.8%)	P= 0.251
• < 1 year	111 (12%)	46 (11.8%)	P= 0.505
Graft dysfunction			
• < 30 days	58 (6%)	27 (6.5%)	*P= 0.404*
• < 1 year	84 (9.7%)	53 (14%)	*P= 0.016*

Conclusion: Obese patients have significantly increased morbidity in terms of vascular and biliary complications after LT. They have a higher risk for worse 1-year graft survival in comparison to controls.

SAT271

Impact of comorbidities on liver transplantation: a prospective and multicentric study

Trinidad Serrano[1], Sergio Sabroso[2], Luis M. Esteban[3], Miguel Ángel Gómez Bravo[4], Pablo Ruiz[5], Rosa Martin-Mateos[6], Alejandra Otero Ferreiro[7], Francsico Javier Bustamante Schneider[8], Sonia Pascual[9], Carolina Almohalla[10], Marta Guerrero[11], Itxarone Bilbao[12], Valle Cadahía-Rodrigo[13], Ángel Rubín[14], Luis Cortes Garcia[1], Elena Oton[15], Ana Arias[16], Esther Molina[17], Urszula Ewa Gajownik[18], Jose Ignacio Herrero[19], Magdalena Salcedo[20]. [1]*Hospital Clinico Universitario Lozano Blesa, Zaragoza, Spain;* [2]*National Cancer Research Center, Madrid, Spain;* [3]*Escuela Universitaria Politécnica de la Almunia, Matemáticas aplicadas, Zaragoza, Spain;* [4]*Hospital Virgen Del Rocio, Sevilla, Spain;* [5]*Clinic, Barcelona, Spain;* [6]*Hospital Ramón y Cajal, Madrid, Spain;* [7]*Coruña University Hospital, A Coruña, Spain;* [8]*Hospital Universitario Cruces, Barakaldo, Spain;* [9]*General University Hospital of Alicantet, Alacant, Spain;* [10]*Rio Hortega University Hospital, Valladolid, Spain;* [11]*Hospital Universitario Reina Sofia, Córdoba, Spain;* [12]*Hospital Universitari Vall d'Hebron, Barcelona, Spain;* [13]*Central University Hospital of Asturias, Oviedo, Spain;* [14]*La Fe University and Polytechnic Hospital, València, Spain;* [15]*Hospital Universitario de Canarias, San Cristóbal de La Laguna, Spain;* [16]*Puerta de Hierro Majadahonda University Hospital, Majadahonda, Spain;* [17]*Santiago Clinic Hospital CHUS, Santiago de Compostela, Spain;* [18]*Parking Hospital Virgen De La Arrixaca, Murcia, Spain;* [19]*Clinica Universidad de Navarra, Pamplona, Spain;* [20]*Gregorio Marañón Hospital, Madrid, Spain*
Email: tserrano.aullo@gmail.com

Background and aims: Comorbidity plays an important role in the mortality of patients both on the waiting list and after liver transplantation (LT). To analyze the impact of comorbidities on LT, a prospective and multicentre study (HEPA_TIC) has been launched and the preliminary results are presented here.
Method: Analysis of 996 consecutive patients included in LT waiting list, in 18 Spanish hospitals, from October 2019 to October 2021. Retransplantation, multivisceral transplantation and patients younger than 16 years were excluded. Comorbidities at the time of

listing, and follow-up variables were collected. The analysis of comorbidities was disaggregated by sex.
Results: Patients were predominantly male (77.2%) with a median age of 61 years IQR (56–66); 60 years in females IQR (54–66) and 61 in males (56–66) (p = n.s). Median follow-up was 7.9 months IQR (4.9–12.1). Decompensated cirrhosis was the most frequent indication with no differences in both sexes. Hepatocellular carcinoma was significantly more frequent in males (45.9% vs. 24.6%; p < 0.001). The most frequent comorbidities were diabetes and arterial hypertension. Diabetes, chronic obstructive pulmonary disease and cardiovascular disease were significantly higher in men (p < 0.05), while chronic kidney disease was higher in women (p < 0.05). Only 11.7% of the listed patients had no comorbidities. The number of comorbidities was higher in males than in females (p < 0.001). 20.3% of the listed men and 15.1% of the women had more than three comorbidities. During follow-up, 4.8% of females and 2.5% of males died on the waiting list. Comorbidity was the cause of 13.3% of these deaths. In our cohort, 735 patients were transplanted during follow-up. Among all analyzed variables, only hyperuricemia was associated with a decrease in intention-to-treat survival (p = 0.02). Also, the presence of more than four comorbidities was related to a lower survival, although it did not reach statistical significance (p = 0.07).
Conclusion: Comorbidities are highly prevalent in patients with liver disease on the LT waiting list and are the second leading cause of waiting list mortality. Hyperuricemia is the only comorbidity associated with lower survival, although further follow-up is needed to determine the impact of other comorbidities on survival.

SAT272

Liver transplant patients infection rate with SARS-CoV-2 is lower but depend upon the infection rate in the general population and have a better outcome

Michal Cohen-Naftaly[1], Evelin Oxtrud[1], Orly Sneh Arbib[1], Assaf Issachar[1], Yael Harif[1], Amir Shlomai[1], Marius Braun[1]. [1]*Rabin Medical Center, Liver Institute, Israel*
Email: michal_c_n@yahoo.com

Background and aims: Conflicting results regarding the susceptibility to SARS-Cov2 infection and outcome in liver transplant (LT) patients (pts) were reported. Israel adopted early active policies to control the epidemic. Initially of severe travel restrictions and social distancing were enforced, followed by a lockdown. The relaxation of the restrictions led to 2 more severe waves, which triggered 2 new lockdowns. Israel was the first in the world to begin immunization with BNT162b2 on 20.12.2020, prioritizing first the elderly and immune compromised and rapidly extending to vaccination of the whole adult population. A fourth wave triggered the administration of booster doses in the same order. Guidelines encouraging social distancing, hygiene, and vaccination were disseminated to our pts and active follow-up was maintained using tele medicine. The immune suppression was not changed.
To assess the pattern of COVID19 pandemic among LT pts followed at Rabin Medical Center, compared to the general population in Israel.
Method: Retrospective study from2019 to 2021. Demographic data on 420 LT pts were collected from the electronic medical records, immunosuppressive therapy, dates of vaccination with BNT162b2, antibody levels after vaccination, data on SARS-COV-19 infection, severity of the disease, treatments and outcome. The data were compared to data reported on the Ministry of Health website: number of those infected in Israel, the vaccination rate. Comparison according to the waves of eruptions in Israel: 1st wave 2–5.2020, 2nd wave 6–11.2020, 3rd 11.2020–4.2021 and 4th wave 6–10.2021. 20.12.2020.
Results: 41 LT pts were diagnosed with Covid-19 out of 420 LT pts followed up : prevalence of 9.7%, significantly less than the 14.53% reported for the whole population (p < 0.05).
There were 4, 6, 19 and 12 COVID-19 cases respectively in waves 1 to 4. In waves 3 and four the number a COVID-19 patients that received 1, 2 and 3 vaccine doses was 2, 10 and 3 respectively, vs 16 unvaccinated. The vaccinated pts were infected at a median of 167 and 27 days after the second and third vaccine, respectively. The risk of infection was proportional to the risk in the population. (Fig 1).
Seven patient were hospitalized and treated with steroids, 3 of them died. All the other patients had mild disease, two pts received monoclonal antibodies.
Three pts died from COVID-19 while 4 pts died of unrelated causes. There was no increase in the mortality of LT pts due to the COVID epidemic.
Conclusion: In our LT cohort the outcome of COVID-19 was better than reported in the literature regarding both morbidity and mortality. Our data indicate that despite the population vaccination and the increase in the antibody titer after the third vaccine, there is still a considerable risk for LT recipients to develop COVID19, which is affected by the infection rate in the general population and not the immunization rate.

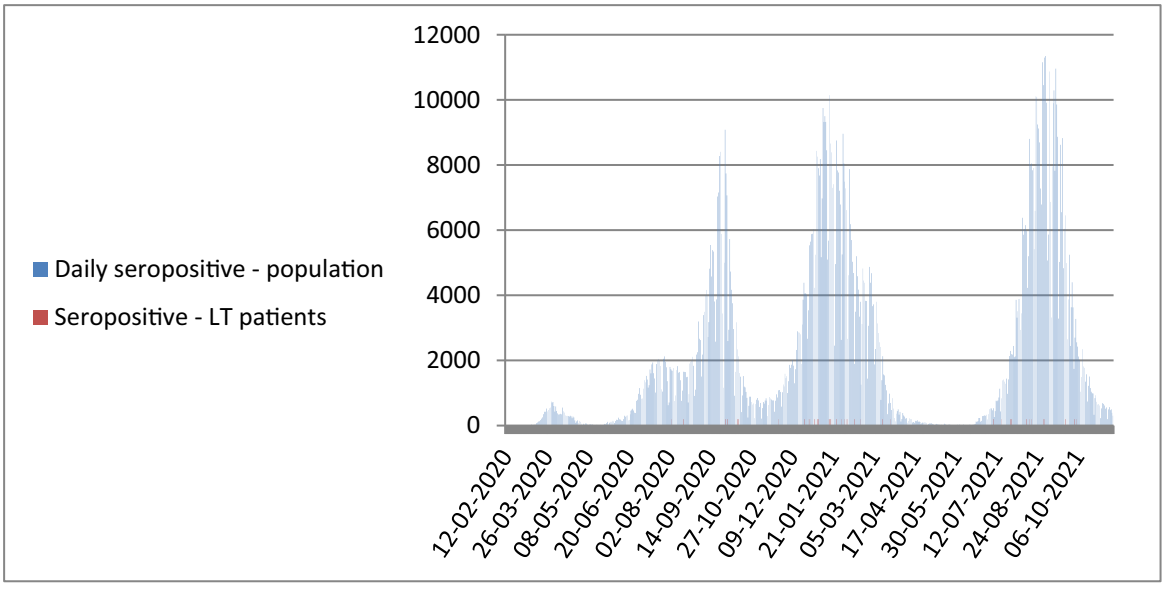

Figure: (abstract: SAT272)