## EP - 17 PROGNOSTIC VALUE OF 18F-FDG PET-CT IN LIVER TRANSPLANTATION FOR HEPATOCARCINOMA

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**Keywords:** Cancer, hepatoma, hepatocellular cancer, liver transplantation

**Aim:** The aim of this study was to evaluate the prognostic value of pretreatment 18f-fdg PET-CT in patients with hepatocarcinoma treated by liver transplantation.
**Methods:** The authors retrospectively analyzed the data of 27 patients (mean age 58 ± 9 years) who underwent FDG PET-CT before liver transplantation for hepatocarcinoma. Mean follow-up was 26 ± 18 months. The FDG PET/CT was performed according to a standard clinical protocol: 4 MBqFDG/kg body weight, uptake 60 min, low-dose non-enhanced CT. The authors measured the SUVmax and SUVmean of the tumor and the normal liver. The tumor/liver activity ratios (RSUVmax and RSUVmean) were tested as prognostic factors and compared to the following conventional prognostic factors: MILAN, CLIP, OKUDA, TNM stage, alphafoetoprotein level, portal thrombosis, size of the largest nodule, tumor differentiation, microvascular invasion, underlying cirrhosis and liver function.
**Results:** Overall and recurrence free survivals were 80.7% and 67.4% at 3 years, and 77.4% and 67.4% at 5 years, respectively. According to a multivariate Cox model, only 18f-fdg PET-CT RSUVmax predicted recurrence free survival. Even though the MILAN criteria alone were not predictive, it is worth noting that none of the patients outside the MILAN criteria and with RSUVmax < 1.15 relapsed.
**Conclusions:** FDG PET/CT with a cut-off value of 1.15 is a strong prognostic factor for recurrence and death in patients with HCC treated by liver transplantation. Further prospective studies should test whether the metabolic index should be systematically included in the preoperative assessment.

## EP - 18 PREDICTORS OF OUTCOME OF LIVER TRANSPLANTATION IN RECIPIENTS OVER 60 YEARS OF AGE

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**Keywords:** Liver Transplantation, Outcome, Elderly.

**Introduction:** As the population of elderly patients with liver disease expands, we are facing increasing numbers of transplant recipients from older age groups. In this retrospective study we aimed to identify donor and recipient factors associated with graft failure and patient mortality following liver transplantation in recipients over 60 years of age.
**Patients and methods:** A retrospective study of prospectively collected data was performed. Analyzed patients included first time, cadaveric liver-only recipients aged over 60 years at the time of the transplant. The patients ($n$ = 138) were transplanted at a single center, between May 2007 and May 2013. Mean age of the patients in this group was 64 years of age (range 60–77). After an average follow up of 34 months (range 12–72) from the transplant, 101 patients (73.2%) were alive with a functioning graft, 5 patients (3.6%) were retransplanted and 37 patients (26.8%) died. Univariate and multivariate analyses were performed to search for predictors of graft failure and patient mortality.
**Results:** Recipient MELD over 25, male sex, acute liver failure and HCV positivity were predictive of patient mortality, while increased incidence of graft failure was seen in patients transplanted with livers from older donors.
**Conclusion:** In times of organ scarcity, optimal organ utilization is of utmost importance. We believe our results can be used for better recipient selection and improved graft to recipient matching in this challenging group of patients.
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## EP - 19 CD14S AS NEW BIOMARKER OF BACTERIAL INFECTION IN LIVER TRANSPLANT RECIPIENTS

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**Keywords:** bacterial infection, liver transplant, Presepsin, antibiotic therapy.

**Introduction:** CD14s (Presepsin) has been identified as a protein whose levels increase specifically in the blood of patients with bacterial infection. Pathfast Assay System (PAS) is able to detect the levels of sCD14. In this study, we evaluated the clinical performance of PAS and its usefulness in the early diagnosis of bacterial infection in liver transplant (LT) recipients.
**Materials:** Twenty-five patients were enrolled in this study. Mean age of patients was 52.5 years, 12 female and 13 male. The heparinized whole blood for PAS was used in the evaluation of bacterial infection after 48 h of liver transplant [T0]. The PAS was repeated after 48 h [T1]; at 96 h [T2]; at 144 h [T3] than at 15 days [T4] for monitoring the clinical responses to therapeutic interventions. Blood cultures were performed in all patients at moment that PAS test was performed. The assay time was 15 min using a sample volume of 100 μL. A value >377 pg/mL was considered positive as indicated by manufacturers.
**Results:** Twelve patients resulted positive to PAS. The mean sCD14 level was 1045 ± 977 pg/mL. Microbiological findings confirmed the presence of bacterial infections within 81 ± 3.2 h from enrolment in all 12 positive patients. Presepsin level increased in five patients at [T1] and [T2]. These five patients (31%) did not respond to empiric antibiotic treatment and the antibiotic therapy was modified. When the PAS was performed, 41% of patients no showed signs or symptoms of bacterial infection. At 30th day of follow up, the survival was 100% with a good graft function.
**Conclusions:** Early diagnosis is essential to improving the results of treatment of infections in particular in LT recipients where infection represents one of the primary barrier to success of transplant. PAS test highlighted a significant performance, showing the presence of infection in a very short time (15 min). A greater number of patients is necessary to confirm these data.

## EP - 20 ANGIOSARCOMA AS SHOCKING HISTOLOGICAL DIAGNOSIS AFTER LIVER TRANSPLANTATION DUE TO BUDD-CHIARI SYNDROME

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**Keywords:** angiosarcoma, Budd-Chiari syndrome, Liver Transplantation

Liver angiosarcoma (AS) is a high-malignant tumor, presenting usually at advanced stages, what implies poor outcomes after conventional treatments (surgical resection, chemotherapy) and also after liver transplantation (LT) (1). Consequently, the latter is currently a contraindication, as quoted in an article from the ELTR (2).

A 23-year-old man, with neither prior diseases nor toxic intake, presented with sudden jaundice and hepatic decompensation. A complete study was conducted in our LT Unit: contrast-enhanced CT, liver biopsy and viral and tumor markers (both negative). Results were plausible with Budd-Chiari Syndrome (BCS), severe abnormal liver function (MELD: 20). Consequently, the patient was included in LT wait-list and one month later he was operated on. Histopathology of the explant liver showed a primary diffuse AS (CD31 and CD34 positive) with paediatric features (kaposiform cells), no extra-hepatic extension. Post-transplant period was uneventful except for early acute renal failure. Seven months after LT, the patient presented metastases in several locations and graft dysfunction, which led to his death.

Diffuse AS has been exceptionally reported to mimick BCS (1,3). Due to this, LT would be performed and it would only be possible to diagnose the tumor during explant histological study, as occurred in our patient. Besides, AS is uncommon among children and the early age of our patient was a factor not suggesting this neoplasm. In fact, to the best of our knowledge, histological paediatric form of AS in a 24 year-old patient has never been reported to date.

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