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## POS-766

### A RARE ASSOCIATION: PHEGMASIA CERULEA DOLENS AND SARS COV 2 INFECTION IN A KIDNEY TRANSPLANT RECIPIENT



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**Introduction:** Phlegmasia cerulea dolens is a rare and severe complication of deep vein thrombosis. It can be life threatening.

**Methods:** We report the first case of Phlegmasia cerulea dolens occurring in a kidney transplant who had had a SARS Cov2 infection.

**Results:** A 52-year-old woman, kidney transplanted in 2008 from a brain-dead donor She was followed for 2 years for an undifferentiated bladder carcinoma, unresectable. She received palliative chemotherapy.

In October 2020, she presented with right iliofemoral deep vein thrombosis complicated by pulmonary embolism and revealing SARS cov2 infection. The patient was initially put on low molecular weight heparin and then on AVK with good outcome. A month later, she developed a redness and pain in her right lower limb with coldness and cyanosis on clinical examination. The diagnosis of right blue phlebitis was suspected and confirmed by Doppler ultrasound of the limb. The patient was put on unfractionated heparin with an electric syringe pump. The evolution was favorable in the limb with a decrease in coldness and cyanosis which had become limited to the right foot and limitation of signs of skin pain in the forefoot. Nevertheless, she presented a locoregional extension of her neoplasia with peritoneal carcinoma. She died in an array of multiple organ failure.

**Discussion:**

Phlegmasia cerulea dolens is a rare and serious complication. It associates phlebitis of a proximal vein with arterial ischemia resulting from a vascular compression due to the severe and sudden edema which leads to a slowing of arterial flow. The triggering factor of this thrombosis seems to be the SARS Cov2 infection. This virus has thrombogenic properties. Indeed, it causes first a vascular endothelial disease by direct invasion of endothelial cells causing endotheliitis and second a pro thrombotic state secondary to the intensity of the inflammatory reaction. Our patient has also neoplasia which is another risk factor for thrombosis. Anticoagulation with heparin gave a good result in our patient. No need to the surgical treatment.

**Conclusions:** SARS COV 2 infection is formidable and constitutes a recognized risk factor for thrombosis. Close monitoring of these patients and proper anticoagulation should reduce the risk of complications.

No conflict of interest

## POS-767

### EFFECTIVENESS OF ICT-BASED INTERVENTIONS FOR PROMOTING MEDICATION ADHERENCE IN KIDNEY TRANSPLANT RECIPIENTS: A SYSTEMATIC REVIEW



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**Introduction:** Kidney transplantation is the gold standard treatment for end-stage renal disease, as it is associated with improved life expectancy, higher quality of life, and lower costs for the healthcare system compared to dialysis therapies. However, long-term success of transplantation depends on adherence to immunosuppressive therapy, which is crucial to reduce the risk of acute rejection and graft loss. Previous studies have reported non-adherence rates ranging from 14% to 36% among kidney transplant recipients. Information and communication technologies (ICT) are emerging as tools that can help to improve and support medication adherence. Thus, this study aimed to systematically review the effectiveness of ICT-based interventions on adherence to immunosuppressive medications in adult kidney transplant recipients.

**Methods:** A systematic literature search was performed between the 26<sup>th</sup> and 30<sup>th</sup> of July 2021 using six electronic databases: Web of Science, PubMed, Scopus, ProQuest, PsycINFO, and CENTRAL. Randomized

controlled trials describing an adherence-enhancing intervention that used some form of ICT (e.g. smartphone applications, SMS, internet, wearable devices) in adult kidney transplant recipients taking immunosuppressive medications were included. Studies that assessed adherence using direct (e.g. variation of tacrolimus blood concentrations) and/or indirect measures (e.g. self-report instruments, pill counts, medication refill rates, or electronic medication monitoring) were eligible. Data extraction was independently performed by two reviewers.

**Results:** Eight intervention studies comprising a total of 722 adult kidney transplant recipients ( $M_{age}=49.5$ ;  $SD=2.8$ ; range 43-53) were identified. Interventions involved the use of mobile phone-based health remote monitoring systems ( $n=4$ ), multicomponent systems ( $n=3$ ), and a web-based program ( $n=1$ ) to enhance medication adherence. The evidence currently available suggested that patients who received mobile health (mHealth) interventions providing medication reminders and motivational and positive reinforcement feedback presented (i) a significantly better medication dose-taking adherence ( $n=2$ ) compared to the standard care control group and (ii) a decrease in tacrolimus inpatient variability (IPV) over time ( $n=2$ ). In addition, the use of remote telemonitoring and real-time video consultations in combination with direct medical services showed a large effect on decreasing non-adherence to immunosuppressive regimens during the first-year post-transplant.

**Conclusions:** This systematic review showed that the effectiveness of ICT-based interventions is still limited due to the small number of studies. The most consistent findings across studies were regarding the positive effects of the mHealth systems on medication adherence. However, further research is needed to quantify the effect of these interventions on long-term adherence. Furthermore, more attention should be paid to the development and evaluation of self-management interventions using computer systems as an adjunct to clinical practice.

**Acknowledgments:** This work is financially supported by the project POCI-01-0145-FEDER-030228, funded by FEDER, through COMPETE2020 - Programa Operacional Competitividade e Internacionalização (POCI), and by national funds (OE), through FCT/MCTES.

Conflict of interest

Potential conflict of interest:

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## POS-768

### ANTI-HBC IMPACTS ON THE RISK OF HEPATITIS B REACTIVATION BUT NOT ON SURVIVAL OF SOLID-ORGAN TRANSPLANT RECIPIENTS



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**Introduction:** Immunosuppression can lead to hepatitis B virus (HBV) reactivation in hepatitis B core antigen antibodies (anti-HBc) positive patients, especially those undergoing chemotherapy, although there is limited data on solid organ recipients, especially lung transplantation. Our aim was to analyze the risk of HBV reactivation and the potential impact of anti-HBc-positive status (both donors and recipients) on prognosis in a lung, kidney, and liver transplantation cohort.

**Methods:** Retrospective analysis including data from all transplants in adults (2011–2012) in a tertiary hospital, with prospective HBV serology study to assess the risk of reactivation and its possible impact on survival. In total, 392 transplant recipients were included (196 kidneys, 113 lungs, 83 liver).

**Results:** Pre-transplantation anti-HBc screening was more frequent in liver recipients ( $P < .001$ ) and donors ( $P < .001$ ) than in kidney or lung. Fifty-five (14%) recipients were anti-HBc-positive and were not undergoing antiviral prophylaxis. Three (5.4%) cases of HBV reactivation occurred: 2 in pre-transplant anti-HBc-positive recipients and 1 with prior unknown anti-HBc status. All were HBeAg+ with HBV deoxyribonucleic acid (DNA)  $>10E8$  IU/mL and only mild fibrosis. Baseline recipient anti-HBc positive status was the only factor associated with HBV reactivation. No reactivation cases occurred in lung or kidney recipients of anti-HBc positive grafts. Survival was lower in