



4 ARALIK 2021

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**COVID-19 PANDEMİSİNDE
NAKİL İLİŞKİLİ İNFEKSİYONLAR
SİMPOZYUMU**

NIÇG
KLİNİK DERNEĞİ NAKİL
İNFEKSİYONLARI ÇALIŞMA GRUBU



COVID-19 Karaciğer Nakli Hastalarında Nasıl Seyretti?



Dr. Yaşar BAYINDIR
04 Aralık 2021-Ankara



Son 100 Yılın En Büyük Paniđi



Kimi daha ok etkiledi?



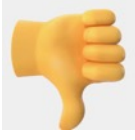
Solid Organ Nakli Hastalarının Farkı



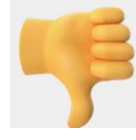
Son 20 yılda giderek artan sayı ve başarıya rağmen!...



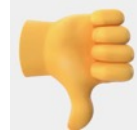
Enfeksiyon Oranları



Enfeksiyonlara bağlı morbidite ve mortalite



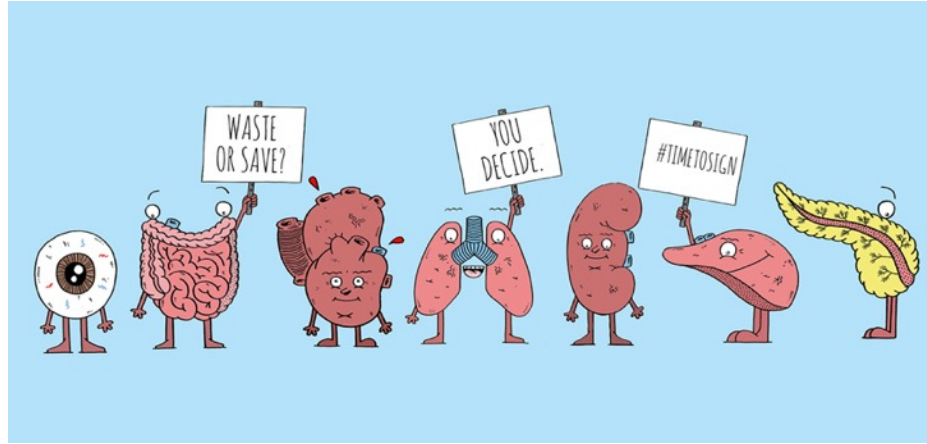
Anitimbikrobiyal tedaviye yanıt



Aşılarla olumlu yanıt

Karaciğer Nakli ve COVID-19

- Hayat kurtarıcı bir operasyon!
- Karaciğer nakli alıcıları ve adayları daha yüksek risk altında (mı)?



Pandemi Döneminde Karaciğer Nakli Ne Zaman, Kime, Kimden?



Bekleme Listesi ve COVID-19



Impact of COVID-19 on Liver Transplantation in Hong Kong and Singapore: A Modelling Study

Eunice Xiang-Xuan Tan^{1,2,3,*}, Wei Liang Quek^{4,*}, Suryadi⁵, Haroun Chahed⁴, Shridhar Ganpathi Iyer^{2,3,7}, Prema Raj Jeyaraj^{8,9}, Guan-Huei Lee^{1,2,3}, Albert Chan¹⁰, Stephanie Cheng⁹, Jan Hoe³, Ek Khoon Tan^{8,9}, Lock Yue Chew⁵, James Fung⁶, Melvin Chen^{4,*}, Mark D. Muthiah^{1,2,3,*}, Daniel Q. Huang^{1,2,3,*}

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ABSTRACT

Background: Liver transplantation (LT) activities during the COVID-19 pandemic have been curtailed in many countries. The impact of various policies restricting LT on outcomes of potential LT candidates is unclear.

Methods: We studied all patients on the nationwide LT waitlists in Hong Kong and Singapore between January 2016 and May 2020. We used continuous time Markov chains to model the effects of different scenarios and varying durations of disruption on LT candidates.

Findings: With complete cessation of LT, the projected 1-year overall survival (OS) decreased by 3-6%, 10-51% and 19-21% for a 1-, 3- and 6-month disruption respectively versus no limitation to LT, while 2-year OS decreased by 4-1%, 12-55%, and 23-43% respectively. When only urgent (acute-on-chronic liver failure [ACLF] or acute liver failure) LT was allowed, the projected 1-year OS decreased by a similar proportion: 3-1%, 8-41% and 15-20% respectively. When deceased donor LT (DDLT) and urgent living donor LT (LDLT) were allowed, 1-year projected OS decreased by 1-2%, 5-1% and 8-85% for a 1-, 3- and 6-month disruption respectively. OS was similar when only DDLT was allowed. Complete cessation of LT activities for 3-months resulted in an increased projected incidence of ACLF and hepatocellular carcinoma (HCC) dropout at 1-year by 49-1% and 107-96% respectively. When only urgent LT was allowed, HCC dropout and ACLF incidence were comparable to the rates seen in the scenario of complete LT cessation.

Interpretation: A short and wide-ranging disruption to LT results in better outcomes compared with a longer duration of partial restrictions.

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- Singapur ve HongKong'ta bekleme listende bulunan hastalar
- 01 Ocak 2016-30 Mayıs 2020
- ≥18 yaş, listedeki 571 hasta
- Devam eden zaman Markov zincirler modeli (CTMC)
- Değerlendirme
 - Tüm sağ kalım
 - HCC hastalarında listeden düşme oranı
 - Listedeki iken ACLF olanlar
- Olası durdurmanın 1,3, 6 ve 12 aylardaki simülasyonu

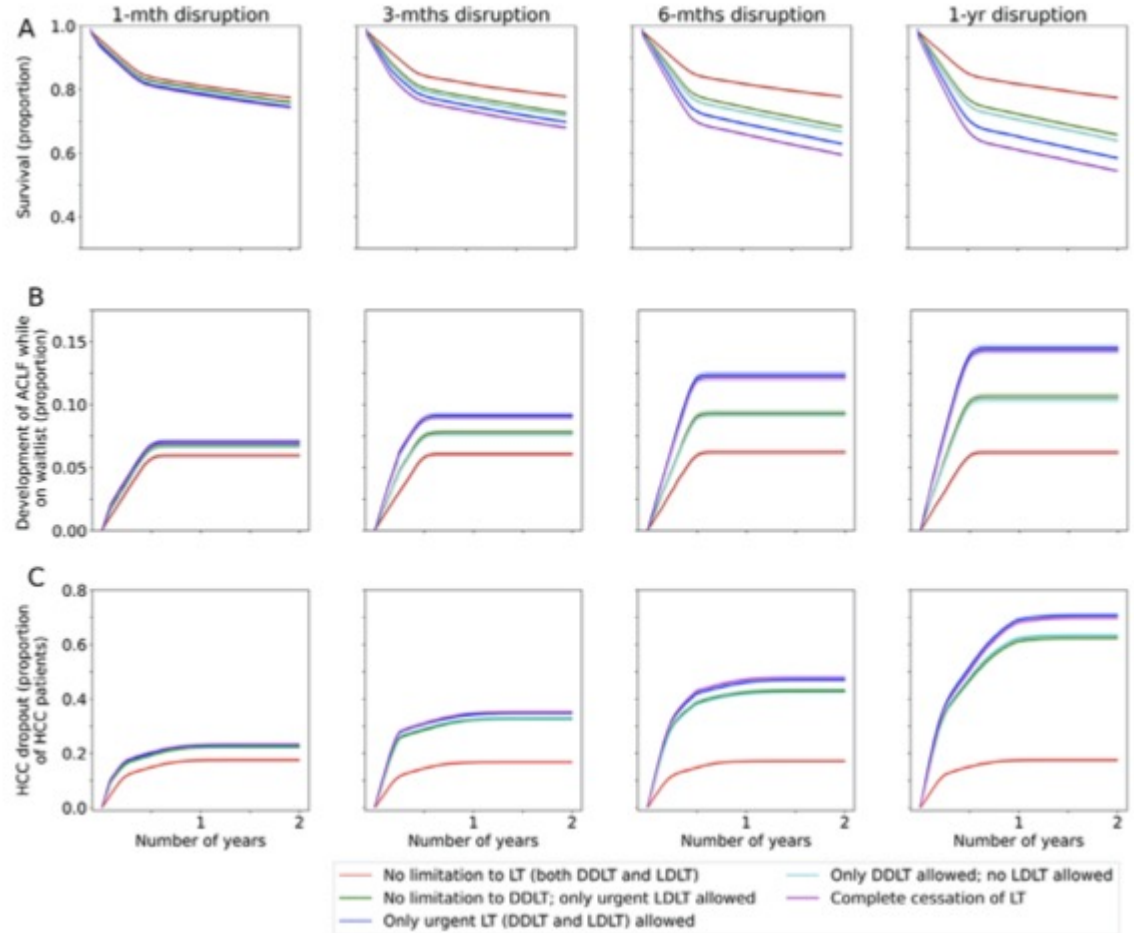
Modelleme Çalışması

- 320 hasta Hong Kong'tan
- 251 hasta Singapur'dan
- Medyan yaş 59 (52-63)
- %68,5 erkek
- 01 Temmuz 2019-30 Mayıs 2020 arasında 111 hasta
- En sık dekompanse siroz ve HCC
- Medyan MELD: 16 (11-24)
- Listeleme sırasında %17,5 ACLF ve ALF
- Bekleme listesindeyken
 - %24,6'sı dekompanse oldu
 - %3,7'inde HCC gelişti
 - %3,4'ünde ACLF gelişti
 - Son vizitte %82,8 yaşıyordu
- Medyan takip süresi 31,6 ay (16-44,5 ay)
- 571 hastanın %57,6'sına nakil yapıldı
- Listede iken 84 hasta (%14,7) öldü
- 181 hasta (%31,7) listeden düştü

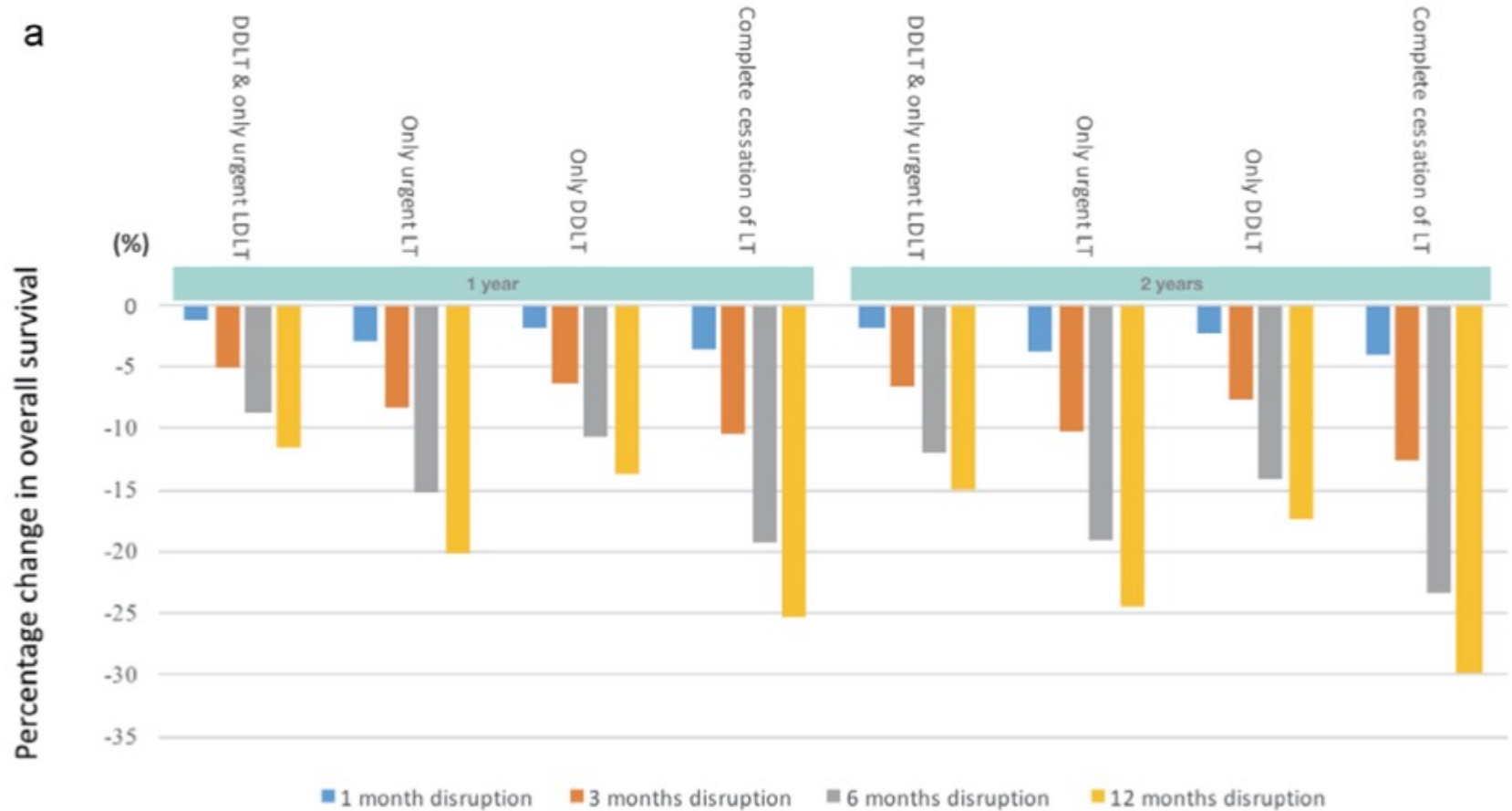
Eğer Kısıtlama Olsa İdi

Kısıtlama var ise;
Sağ kalımda azalma

- 1. ay: %3,6
- 3. ay: %10,51
- 6. ay: %19,21
- 12. ay: %25,22

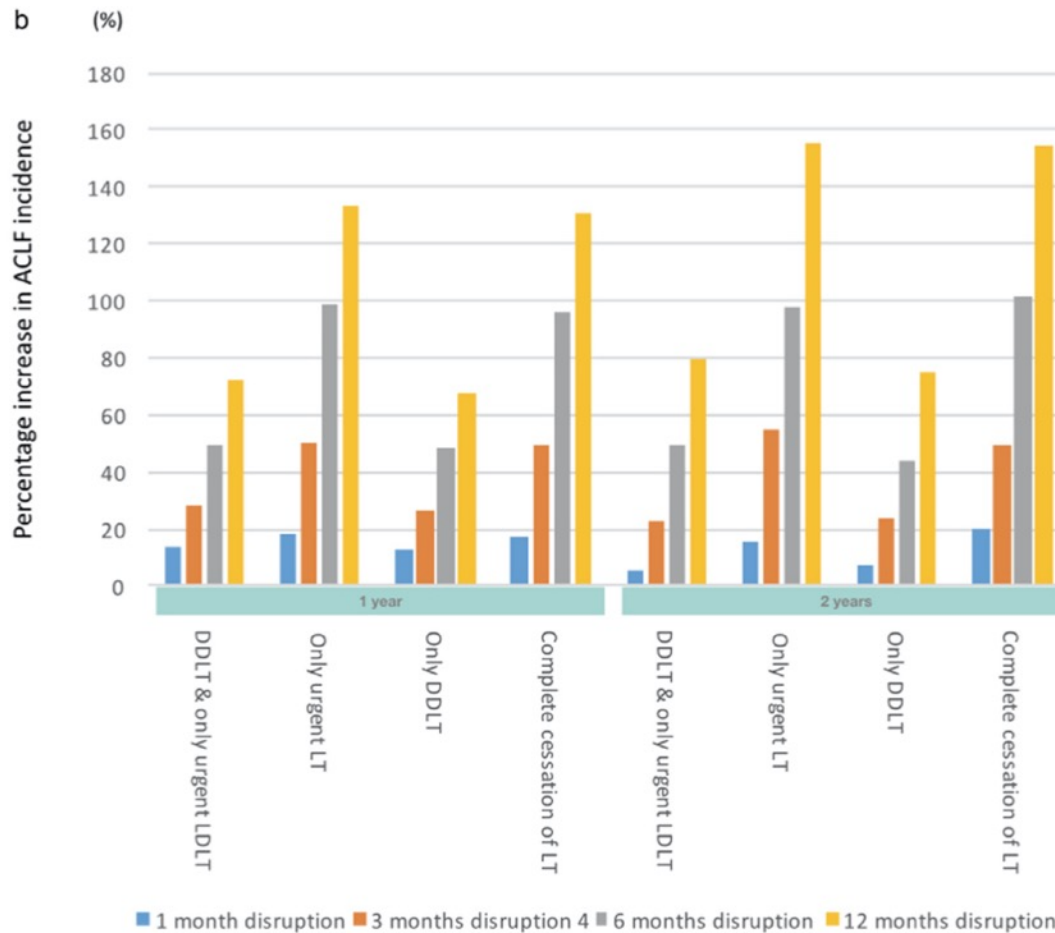


Kısıtlama Türleri ve Sağ Kalım



X-X Tan E., et al. Lancet Reg Health West Pac 2021 Nov;16:100262.

Bekleme Listesinde İken Kronik Zeminde Gelişen Akut Karaciğer Yetmezliği



Pandeminin Erken Dönemi

- Birçok merkez canlı vericili karaciğer naklini durdurdu
- Bazı merkezler ise
 - Yüksek MELD skorlu hastalar
 - Akut karaciğer yetmezliği olan hastalar
 - Kronik zeminde akut yetmezliği olan hastalar
- Hong Kong, Güney Kore'de değişim yok

Chew et al. J Hepatol 2020;73(4):873–81.

Boyarsky et al. Am J Transplant 2020;20(7):1809–18.

X-X Tan E., et al. Lancet Reg Health West Pac 2021 Nov;16:100262.

Karaciğer Nakli Uygun Olan En Erken Zamanda Yapılmalı

- Karaciğer yetmezliği acil bir durum
- Acil olmayan karaciğer nakli ertelenebilir (mi)?
- Hastalık ilerleyebilir, bekleme listesi değişebilir
 - Kronik zeminde akut karaciğer yetmezliği
 - Hepatosellüler karsinom

Neden Korkuyoruz?

- Semptomların çeşitliliği
- Toplum ve hastanede asemptomatik taşıyıcılar
- Hastaneye başvuru sırasında maruziyet riski
- Alıcıda COVID-19 var mı?
- Donörden alıcıya bulaş olur mu?
- Karaciğer alıcılarında hastalık daha ağır seyreder mi?

Karaciğer Nakli Hastalarında Cevap Aranılan Sorular?

- Risk deęerlendirmesi
- Klinik prezentasyon
- Hastalık ciddiyeti
- Antiviral tedavi
- İmmünsüpresyon
-



İmmünsüpresyon Yönetimi?

- Antimetabolitlerin kesilmesi veya doz azaltımı yeterli mi?
 - Mikofenolat
 - Azotiyoprin



Nakil Sonrası COVID-19

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ORIGINAL ARTICLE

AJT

COVID-19 in solid organ transplant recipients: Initial report from the US epicenter

Marcus R. Pereira¹ | Sumit Mohan^{2,3,4} | David J. Cohen² | Syed A. Husain^{2,3} | Geoffrey K. Dube² | Lloyd E. Ratner⁵ | Selim Arcasoy⁶ | Meghan M. Aversa⁶ | Luke J. Benvenuto⁶ | Darshana M. Dadhania⁷ | Sandip Kapur⁸ | Lorna M. Dove⁹ | Robert S. Brown Jr.¹⁰ | Russell E. Rosenblatt¹⁰ | Benjamin Samstein¹¹ | Nir Uriel¹² | Maryjane A. Farr¹² | Michael Satlin¹³ | Catherine B. Small¹³ | Thomas J. Walsh¹³ | Rosy P. Kodiyankal¹³ | Benjamin A. Miko¹ | Justin G. Aaron¹ | Demetra S. Tsapepas⁵ | Jean C. Emond⁵ | Elizabeth C. Verna⁹

Toplam 90 hasta

- 13 Mart-03 Nisan 2020 (üç hafta)
- %59 erkek
- 46 (%51) böbrek nakli
- 17 (%19) akciğer
- 13 (%14) karaciğer
- 9 (%10) kalp
- 3 (%3) kalp-böbrek
- 1 (%1) karaciğer-böbrek
- 1 (%1) böbrek-pankreas

Nakilden sonra ortalama 6,64 yıl sonra tanı
ilk ayda üç (%3) hasta, ilk yılda 13 (%14) hasta

İmmünsüpresyon-Hastalık Ciddiyeti?

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Demetra S. Tsapepas⁵ | Jean C. Emond⁵ | Elizabeth C. Verna⁹

- Hafif hastalık: 22 (%24)
- Orta: 41 (%46)
- Ağır: 27 (%30)
 - İleri yaş
 - Hipertansiyon
 - Aktif kanser

İmmünsüpreseyon seviyesi ile hastalık ciddiyeti arasında fark yok!

Klinik Prezantasyon

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- Belirtilerin başlaması ile PZR pozitifliği arasında geçen süre ortalama dört gün
- En sık görülen semptomlar
 - Ateş: 63 (%70)
 - Öksürük: 53 (%59)
 - Dispne: 39 (%43)
 - Halsilik: 25 (%28)
 - Miyalji: 22 (%24)
 - İshal: 28 (%31)

15 (%17) hastada hastane dışı maruziyet
3 (%4) hastada nozokomiyal bulaş şüphesi (ağır hastalığa ilerlemiş)
7 (%8) hastada ilk test negatif

Görüntüleme: Toraks BT

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- 68 (%76) hospitalize hastanın hepsinde PA Akciğer grafisi anormal
- Enfeksiyon kontrol önlemleri nedeniyle BT yapılmamış!!!

Hastaların Yönetimi

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- 62 (%91) hastaya HQ
- 45 (%66) hastaya azitromisin
- Kardiyotoksik yan etki yok
- 14 hastaya tokilizumab
 - 9 hastaya tek doz
 - 4 hastaya 2 doz
 - 1 hastaya 3 doz

İmmünsüpresif Tedavi

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- Dozu azaltılan veya kesilenler
 - 42 (%88) hastada antimetabolit
 - 3 (%7) hastada steroid
 - 10 (%18) hastada kalsinörin inhibitörleri

Tokilizumab Verilen Hastalar

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Demetra S. Tsapepas⁵ | Jean C. Emond⁵ | Elizabeth C. Verna⁹

- Ölen: 3 hasta
- 4 hasta hala yoğun bakımda
- 5 hasta orta ağırlıkta serviste
- 2 hasta taburcu

Hastaneye Yatan Hastalar

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- Mortalite
 - Tüm hastalar %18 (16/90)
 - Hastaneye yatırılanlar: %24 (16/68)
 - Yoğun bakıma alınanlarda: %54 (12/23)

- 68 (%76) hasta yatırıldı
- 13 (%19) hastaya oksijen gerekmedi
- 20 (%29) nazal kanül
- 10 (%12) yüksek akımlı nazal kanül veya BIPAP
- 24 (%35) mekanik ventilasyon
- 23 hasta (yatanların %34'ü, toplam hastaların %26'sı) yoğun bakımda

İlginç Bir Karar!

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Demetra S. Tsapepas⁵ | Jean C. Emond⁵ | Elizabeth C. Verna⁹

- Entübe edilmeyi ve yoğun bakım ünitesine alınmayı kabul etmeyen dört hasta öldü

Peki Sonra Karaciğer Nakli Hastalarında COVID-19 Nasıl Seyretti?



Research paper

Impact of COVID-19 on liver transplant recipients—A systematic review and meta-analysis

Anand V. Kulkarni^{a,*}, Harsh Vardhan Tevethia^{a,*}, Madhumita Premkumar^b, Juan Pablo Arab^c, Roberto Candia^c, Karan Kumar^d, Pramod Kumar^a, Mithun Sharma^a, Padaki Nagaraja Rao^a, Duvvuru Nageshwar Reddy^a

^a Department of Hepatology, Asian Institute of Gastroenterology, Hyderabad, India

^b Department of Hepatology, PGIMER, Chandigarh, India

^c Departamento de Gastroenterología, Escuela de Medicina, Pontificia Universidad Católica de Chile, Santiago, Chile

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ABSTRACT

Background: Immunosuppression and comorbidities increase the risk of severe coronavirus disease-2019 (COVID-19) in solid organ transplant (SOT) recipients. The outcomes of COVID-19 in liver transplant (LT) recipients remain unclear. We aimed to analyse the outcomes of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection in LT recipients.

Methods: The electronic databases were searched for articles published from 1 December 2019 to 20 May 2021 with MeSH terms COVID-19, SARS-CoV-2, and liver transplantation. Studies reporting outcomes in more than 10 LT recipients were included for analysis. LT vs non-LT patients with COVID-19 infection were compared for all-cause mortality, which was the primary outcome studied. We also evaluated the relation between the timing of COVID-19 infection post-LT (< one year vs > one year) and mortality.

Findings: Eighteen articles reporting 1,522 COVID-19 infected LT recipients were included for the systematic review. The mean age (standard deviation [SD]) was 60.38 (5.24) years, and 68.5% were men. The mean time (SD) to COVID-19 infection was 5.72 (1.75) years. Based on 17 studies ($I^2 = 7.34$) among 1,481 LT recipients, the cumulative incidence of mortality was 17.4% (95% confidence interval [CI], 15.4–19.6). Mortality was comparable between LT ($n = 610$) and non-LT ($n = 239,704$) patients, based on four studies (odds ratio [OR], 0.8 [0.6–1.08]; $P = 0.14$). Additionally, there was no significant difference in mortality between those infected within one year vs after one year of LT (OR, 1.5 [0.63–3.56]; $P = 0.35$). The cumulative incidence of graft dysfunction was 2.3% (1.3–4.1). Nearly 23% (20.71–25) of the LT patients developed severe COVID-19 infection. Before infection, 71% and 49% of patients were on tacrolimus and mycophenolate mofetil, respectively. Immunosuppression was modified in 55.9% (38.1–72.2) patients after COVID-19 infection.

Interpretation: LT and non-LT patients with COVID-19 have a similar risk of adverse outcomes.

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- 01 Aralık 2019-20 Mayıs 2021
- Kongre sunumları
- Makaleler
- Metaanalizler
- Dışlananlar
 - Olgu sunumları ve olgu serileri (<10 hasta)
 - Derlemeler
 - Kılavuzlar
 - Editorialler
 - Kılavuzlar
 - Protokoller
 - Pediatrik hastaları içeren makaleler
 - Pandemi sırasında yapılan nakil sayısı ile ilgili makaleler

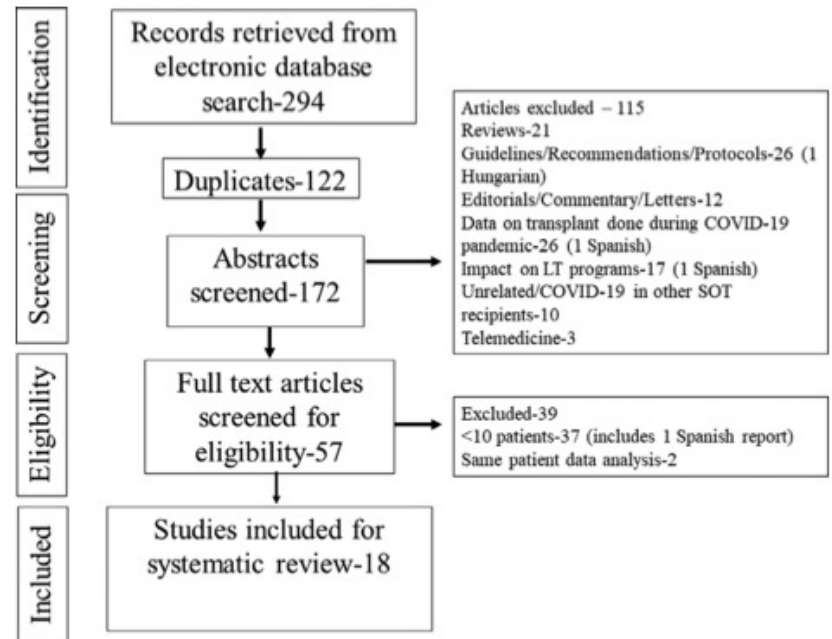
Kulkarni et al. EClinicalMedicine. 2021 Aug;38:101025.

- 294 makale
- 172 kongre özeti (122 dublikasyon nedeniyle çıkarıldı)
- 57 tam metin makale
- <10 hasta içeren 37 makale
- 2 makale ön hazırlık veri içermekte

Toplam 18 makale

1522 hasta

%68,5 erkek, ortalama yaş: 60,38



Karaciğer Alıcılarında COVID-19

12 Çalışmada (994 hasta) Semptomlar

- Ateş: %49,7
- Öksürük: %43,7
- Dispne: %29,27
- Gastrointestinal semptomlar: %27,6

Sekiz çalışmada inflamatuvar belirteçler (ortalama)

- Ferritin: 731,25 ng/mL
- IL-6: 48,95 pg/mL
- CRP: 74,22 mg/L
- D-dimer: 1092,75

Nakilden COVID-19 tanısına geçen süre ortalama: 5,72 yıl

Komplikasyonlar

- Ciddi Hastalık: %22,5
- AKI kümülatif insidans: %33,22
- AKI gelişen hastalarda evre-3 AKI veya renal replasman gerekliliği: %55,2
- Trombotik komplikasyonlar: %5,7 (7 çalışma)

Sekonder İnfeksiyonlar

(4 çalışma)

- Bakteriyel infeksiyon: %11,6
- Fungal infeksiyon: %2,58

Hastaneye Yatış, Yoğun Bakıma Alınma ve Mortalite

- 17 makale
- Kümülatif mortalite: %17,4
- Hastaneye yatış kümülatif insidans: %72 (14 makale)
- Üç makalede nakil olanlarda hastaneye yatış oranı daha yüksek
- Yoğun bakıma alınma: %16 (15 makale)
- Dört makalede yoğun bakıma alınma açısından fark yok

COVID-19 Ciddiyeti

- DM
- Kardiyovasküler hastalık
- Hipertansiyon
- Böbrek yetmezliği
- Akciğer hastalıkları
- Yaş
- ...

Karaciğer hastalıkları ve COVID-19

- Altta yatan karaciğer hastalığı?
- Karaciğer nakli hastaları (immünsüpresyon)
- Komorbidite+Karaciğer nakli

Azzi et al. Transplantation 2021; 105(1):37–55.
Elias et al. J Am Soc Nephrol 2020;31 (10):2413–23.

Bekleyen Sorular/Sorunlar?

- Altta yatan karaciğer hastalıkları COVID-19 seyrini etkileyebilir
- Karaciğer nakil alıcıları immünsüpresif olduklarından ciddi enfeksiyonlara yatkınlar
- Komorbidite+immünsüpresyon seyri daha da ağırlaştırabilir
- SARS-CoV-2 karaciğer hastalığını ağırlaştırabilir
- Bekleme listesinde mortalite artabileceği için karaciğer nakli ertelenmeyebilir
- SARS-CoV-2'nin greft üzerine etkileri net değil
- Klinik seyir, yönetim ve sonuçları anlamak?

Bu Metaanalizin Cevapladıkları

- Karaciğer nakli hastalarında mortalite daha yüksek (%17,4)
- Enfekte hastaların %25'inde ağır hastalık
- Hipertansiyon, DM ve obezite en yaygın altta yatan hastalıklar
- Hastaların %72'si hospitalize (Karaciğer nakli hastalarında daha yüksek oran, $p < 0,001$)
- Hastaların %16'sı yoğun bakımda (her iki grup karşılaştırılabilir)
- Kümülatif greft disfonksiyon insidansı: %2,3
- Hastaların çoğu COVID-19 öncesinde takrolimus ve MMF almakta idi
- En sık modifiye edilen ajanlar CNI ve sonra MMF

İleri Yaş Mortaliteyi Artırmakta

- >60 yaş mortalite için risk faktörü

Metataanaliz Sonucu: KcN Olanlar vs Olmayanlar

- Karaciğer nakli olan ve olmayan hastalarda ortalama yaş ve mortalite oranları benzer
- Komorbiditeler eşit dağılmamış
 - DM karaciğer nakli hastalarında daha sık
 - Kardiyovasküler ve akciğer hastalıkları nakil olmayanlarda daha sık

Mortalite her iki grupta benzer

Siroz ve KcN Hastaları

- Sirozlu hastalarda mortalite: %30-42
- KcN Hastalarında mortalite: %17,4

KcN ve Greft Disfonksiyonu

- Böbrek nakli hastalarına göre greft disfonksiyon oranı düşük
- MMF COVID-19'un sitotoksik etkisini artırabilir¹
- Takrolimus kullanımı mortaliteyi azaltabilir²
- İmmünspresif ajanlara devam etmek sonuçları iyileştirebilir?^{3,4}

1. Colmenero et al. J Hepatol 2021;74(1):148–55.
2. Belli et al. Gastroenterology 2020;160 (4):1151–63 e3.
3. Mathiasen et al. Transplant Proc 2020;52(9):2703–6.
4. Sessa A, et al. World J Gastroenterol 2020;26(44):7076–84.

Pandemi Başında Deneyimlerimiz

- Karaciğer nakli yapılan hastaları ve üç yakın ardışık zaman dilimi
 - 1 Ekim-31 Aralık 2019 (pandemi öncesi)
 - 1 Ocak-10 Mart 2020 (geçiş dönemi)
 - 11 Mart-22 Haziran 2020 (geçiş dönemi sonrası)
 - 34 farklı ilden ve yurt dışından gelen hastalar

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Short-term experiences of a liver transplant centre before and after the COVID-19 pandemic

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Abstract

Background/Aim: With the COVID-19 pandemic, managing the process of solid organ transplantation has become a significant matter for transplant centres. In this study, we report our experiences on evaluating the effects of COVID-19 in patients with recent liver transplants.

Materials and Methods: We evaluated patients who received liver transplants during three close consecutive periods of time. For transplants conducted between October 1 and December 31, 2019, January 1 and March 10, 2020 and March 11 and June 22, 2020, the lung tomographies of patients were inspected for radiological signs of viral pneumonia. For patients after March 11, 2020, the hospital's electronic database system was scanned for preoperative and postoperative SARS-CoV-2 testing from Real-time Polymerase Chain Reaction (RT-PCR) of the respiratory tract samples.

Results: A total of 149 patients over the age of 18 who received liver transplants at our centre between October 1, 2019 and June 22, 2020 were evaluated. During this time span, our centre conducted liver transplants on patients from 34 different provinces and also abroad. Within this time period, a total of nine patients had respiratory samples with a positive SARS-CoV-2 RT-PCR test. PCR of respiratory tract samples was performed in 21 (14%) patients to identify the other potential infective agents in the respiratory tracts; Rhinovirus and Influenza A were detected in two and respiratory syncytial virus (RSV) was detected in one patient. During the transplant periods, 99 (67.1%) patients were evaluated with computed tomography (CT). The CT findings of 18 (12%) patients were consistent with viral pneumonia. There was a statistically significant difference between the groups only in terms of air bronchogram findings ($P = .012$).

Conclusion: The clinical status of our short-term liver transplant patients was far better than we originally anticipated, but it remains obvious that the necessary precau-

TABLE 1 The distribution of gender and location for liver transplant recipients within the specified time periods

Time period	Gender		Total	Location (Region)		
	M (n), (%)	F (n), (%)		Within the province (n), (%)	Outside the province (n), (%)	Abroad (n), (%)
October 1-December 31 (pre-pandemic period)	36 (61%)	23 (39%)	59	5 (9%)	48 (81%)	6 (10%)
January 1-March 10 (temporary period)	19 (63%)	11 (37%)	30	2 (7%)	22 (73%)	6 (20%)
March 11-June 22 (pandemic period)	34 (57%)	26 (43%)	60	6 (10%)	51 (85%)	3 (5%)
Total	89 (60%)	60 (40%)	149	13 (9%)	121 (81%)	15 (10%)

-
- >18 yaş, toplam 149 hasta
 - Klinik
 - RT-PCR
 - Radyolojik bulgular
 - RT-PCR pozitif: 9 hasta
 - Solunum yolu paneli yapılan 21 (%14) hasta
 - 2 hasta: Rinovirüs+Influenza A (Ocak 2020)
 - 1 hasta: RSV (Mart 2020)

Dönemler Arası Fark

- 99 (%67,1) hastada bilgisayarlı tomografi
- BT bulguları 18 (%12) hastanın viral pnömoni ile uyumlu
- Sadece hava bronkogram bulguları ilk dönemde yüksek oranda (P = .012).

Merkezimizde İlk Olgular



ELSEVIER

Clinical Characteristics and Outcomes of Liver Transplantation Recipients With COVID-19 Pneumonia

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ABSTRACT

Background. We aimed to evaluate the clinical characteristics and outcomes of mild-severe COVID-19 pneumonia cases in liver transplant (LT) recipients.

Methods. Ten LT recipients diagnosed as having COVID-19 pneumonia in a 6-month period in our transplantation center were included. Demographic and medical data of the recipients were retrospectively collected; clinical courses, treatment responses, and outcomes were evaluated.

Results. Ten LT recipients were male, had a median age of 57 years (min-max, 36-69 years; interquartile range [IQR], 13 years), and had right lobe from living donor LT performed in a median of 11 months (min-max, 1-72 months; IQR, 12 months). Five patients had severe pneumonia, and the remaining patients had mild/moderate pneumonia. The most frequent symptoms were fever (90%) and cough (70%). Favipiravir, enoxaparin sodium, and corticosteroid were initiated at the time of the diagnosis; immunosuppressive drug doses were reduced or discontinued in 3 cases. Lymphopenia median: 510/mL (min-max, 90-1400 mL; IQR, 610 mL), increased levels of C-reactive protein median: 4.72 (min-max, 0.31-23.4; IQR, 8.5), and ferritin median: 641 (min-max, 40 to \geq 1650; IQR, 1108) were frequent. Four patients required antibacterial treatments because of emerging bacterial pneumonia and/or sepsis. All patients were hospitalized for a median of 10 days. One patient with sepsis died on the 26th day after intensive care unit admission, and the remaining 9 survived. No further complication was recorded for 1-month follow-up.

Conclusions. Commencing favipiravir, enoxaparin sodium, and corticosteroid treatments; close follow-up of the developing complications; the temporary reduction or cessation of immunosuppression; a multidisciplinary approach; early awareness of the bacterial infections; and the initiation appropriate antibiotic treatments can contribute to success.

- 10 hasta, hepsi erkek
- Yaş ortalaması 57 (36-69)
- Şiddetli olgu: 5
- Üç hastada immünsüpresif ajan modifikasyonu
- Dört hastaya antibakteriyel
- Bir hasta 26. günde kaybedildi

COVID-19 Tanı Sonrası 21. Gün Nakil

Journal of Gastrointestinal Cancer
<https://doi.org/10.1007/s12029-021-00590-5>

CASE REPORT



A Recipient and Donor Both Have COVID-19 Disease. Should We Perform a Liver Transplant?

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Abstract

Coronavirus 2019 (COVID-19) is a new infectious disease that continues to spread globally. There is growing concern about donor-induced transmission of Coronavirus 2 (SARS-CoV-2). For liver transplantation, the COVID-19 PCR test is routine, in addition to epidemiological history and clinical and radiological examination 24–48 h before surgery. One of the liver transplant candidates was found to be infected with COVID-19, as well as the planned donor candidate. Since COVID-19 will be a high-risk operation for both the recipient and the donor, the operation was postponed by giving medical treatment. After the treatment and quarantine process was over, the patient and the donor then had a negative COVID-19 PCR test and the patient received a living donor liver transplant. We present a case of donor and recipient who initially both tested positive for COVID-19. This liver transplantation scenario has not previously been reported in the literature.

iÜ Karaciğer Nakli Enstitüsü Güncel Sonuçlar

- 11 Mart 2020 tarihinden sonra kaybedilen ve hala yaşayan 1900 hasta verileri incelendi
- 32 hasta COVID-19 tanısı almış ve sonrasında karaciğer nakli yapılmış
 - Dört hasta kaybedilmiş
 - Üç hasta ilk bir ayda, diğeri bir yıl sonra

İÜ Karaciğer Nakli Enstitüsü Deneyimleri-d

- Nakil olmuş hastalardan COVID-19 tanısı alan hastalar
 - Tanı alan hasta sayısı: 363
 - Kaybedilen hasta sayısı: 28
 - COVID dışı nedenlerle kaybedilen: 10
- HCC nedeniyle nakil olmuş hastalar (n=271)
 - COVID-19 tanısı alan: 66
 - COVID-19 nedeniyle kaybedilen hasta: 1

Özetle

- Akut karaciğer yetmezliğinde nakli bekletilemez
- Nakil öncesi ve sonrası COVID-19 açısından özenle değerlendirme yapılmalıdır
- Karaciğer nakli bekleme listesi değişebileceği göz önüne alınmalı
- Akut (ya da kronik zeminde) karaciğer yetmezliği, MELD skoru yüksek ve HCC'li hastalara öncelik verilmeli
- Enfeksiyon kontrol önlemleri aksatılmadan uygulanmalı
- İmmünsüpresif tedavi protokolleri hazırlanmalı ve her hastaya göre ayarlanmalıdır

COVID-19 Makaleleri

Abstract



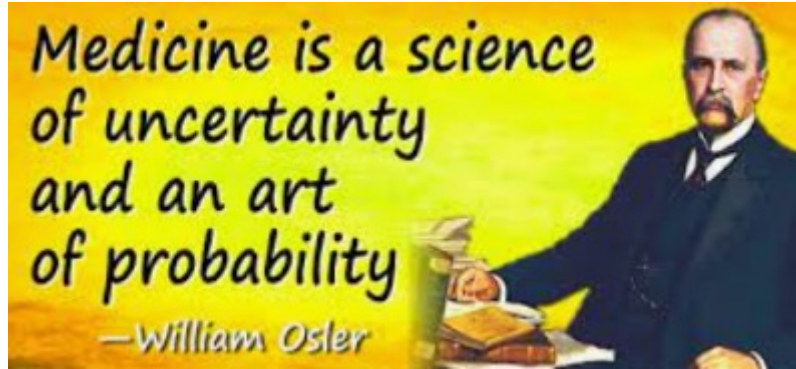
Introduction



Results



Hep Sađlıklı ve Mutlu Kalın...



Tıp, bir belirsizlik bilimi ve
bir olasılık sanatıdır

William Osler