

A Systematic Review of Solid Organ Transplantation in Acute Presentations of Tropical Infectious Diseases

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Introduction

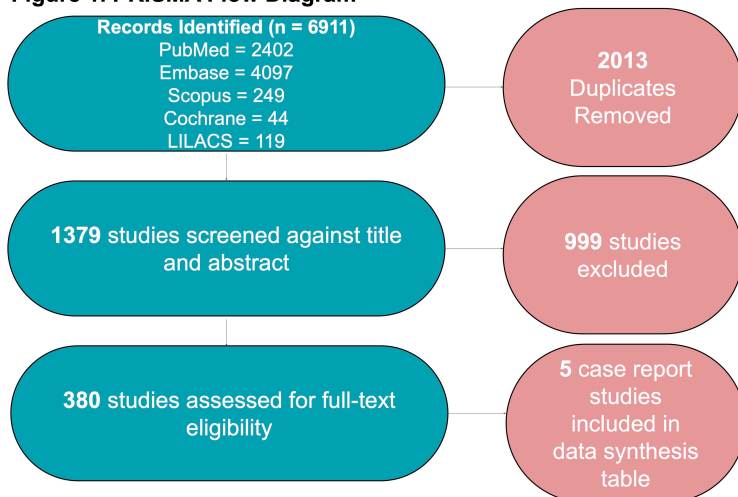
- We aim to understand the frequency, indications for, and outcome of SOT in the treatment of acute tropical infectious diseases presenting with fulminant organ failure by systematically mapping the existing literature.
- Fulminant life-threatening presentations of acute tropical infectious diseases may occur, and the degree of end-organ impairment may qualify patients for emergency solid-organ transplantation (SOT).
- However, SOT may not be beneficial in all cases as failure of the transplanted organ is only one possible cause of death¹. The outcomes from such an intervention are largely unknown for many acute tropical infectious diseases.
- Due to a paucity of synthesized data, there is a knowledge gap around indications for and outcomes in SOT for severe acute tropical infectious diseases.

Methods

- We will be conducting a systematic review.
- PubMed, Embase, Scopus, Cochrane, and LILACS were searched using combinations of search terms such as the following: "liver" or "hepatic" "transplant," "yellow fever" "dengue", "Plasmodium spp.", and "Lepto*" from database inception to September 30, 2019.

Results

Figure 1. PRISMA Flow Diagram



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Table 1. Data Synthesis Table

Study	Year of Publication	Organ	Tropical Disease(s)	Pathogen (Full Name)	Method of Diagnosis	Outcome (ex. Mortality/Survival; Temperature; Biochemical Parameter, etc.)	Study Type	Other Comments
Song, Alice Tug Wang	2018	Liver	Yellow Fever Virus (YFV), Fulminant Hepatitis (Acute Liver Failure)	Hepatitis D Virus (HDV)	Antibody Detection	Patient survived	Case Report	N/A
Shimata, Keita	2018	Liver	Fulminant Hepatitis (Acute Liver Failure)	Hepatitis E Virus (HEV)	Antibody Detection	Patient survived; It took 2.5 months for HEV RNA to become undetectable; Patient was discharged from the hospital on postoperative day 43; 8 months post transplant, his graft function is normal & HEV RNA has remained negative	Case Report	N/A
Tenorio González, Elena	2018	Liver	Fulminant Hepatic Failure (Acute Liver Failure)	Hepatitis E Virus (HEV)	Antibody Detection	Patient survived; Negative HEV RNA; One year later, patient is in excellent post-transplant condition on treatment with tacrolimus	Case Report	In this case, diagnosis of HEV was confirmed after liver transplant was performed
Li, Iris Wai Sum	2017	Liver	Hepatitis E Infection (Acute Liver Failure)	Hepatitis E Virus (HEV genotype 3)	Antibody Detection	Patient survived; no HEV reactivation 4 years post liver transplant	Case Report	N/A
Paskaran, P.	2008	Liver	Hepatitis E Infection (Acute Liver Failure)	Hepatitis E Virus (HEV)	Antibody Detection	Survival	Case Report	N/A

Discussion & Conclusion

1. Due to a paucity of synthesized data, there is a knowledge gap around indications for and outcomes in SOT for severe acute tropical infectious diseases.
2. At this time, most published literature on SOT in acute tropical infectious diseases is related to liver transplantation for acute Hepatitis E Virus infection. All 5 cases survived.

References

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