Pediatric Heart Transplant Society

What's Pumping in Pediatric Heart Transplant Research?

Summary of the following recently published article from PHTS

Fontan-associated plastic bronchitis waitlist and heart transplant outcomes: a PHTS analysis

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Heart transplant (HTx) has become an option that may cure plastic bronchitis, but most studies have reported on a small number of patients. The casts may still be present for a period of time after HTx and potentially affect a patients course following HTx. This study was done to evaluate survival on the waitlist and after heart HTx for patients with Fontan-associated plastic bronchitis.

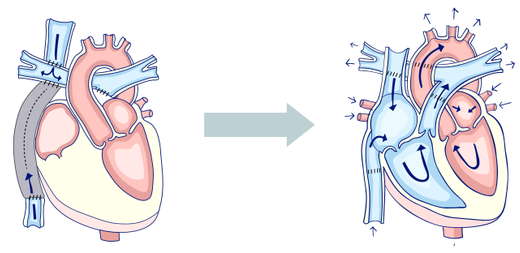
What is Plastic Bronchitis?



The formation of rubbery plugs of mucus and protein in the airways that lead to cough, trouble breathing, and spitting up of plugs.

Plastic bronchitis (PB) is a rare problem after surgical palliation for single ventricle congenital heart disease. The final surgery is called the Fontan operation.
Fontan-associated PB is seen in 4-14% who get the Fontan operation.

PB to Heart Tx



- Patients were listed a median of 4.6 years after Fontan operation.
- Median time on the waitlist was 4.8 months.
- Fontan patients with PB were transplanted a median of 5.1 years after Fontan (or median age of 9.8 years).
- Fontan patients without PB were transplanted a median of 8.5 years after Fontan (or median age of 12.3 years).



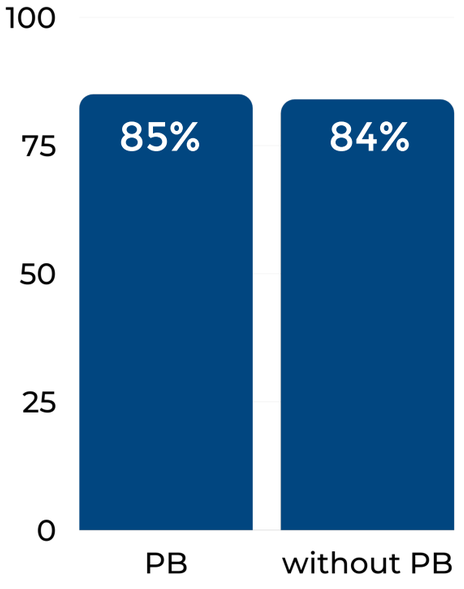
Population

All patients <18 listed for heart tx after Fontan from 2010-2018

69 with PB
8.9 years old at listing
9.8 years old at HTx
74% of patients received HTx

576 without PB
11.1 years old at listing
12.3 years old at HTx
72% of patients received HTx

5 Year Survival Post HTx



Concerns for death early after HTx disappeared with no deaths due to respiratory failure or ongoing PB.

Summary:
Our study shows that heart transplant for plastic bronchitis is as safe as heart transplant for other indications of Fontan failure.

For more information refer to the original article:

Pediatr Transplant. 2021 Aug;25(5):e13951. doi: 10.1111/petr.13951. Epub 2021 Jan 6.