

Outcomes of Lung Transplantation in Septuagenarian Recipients

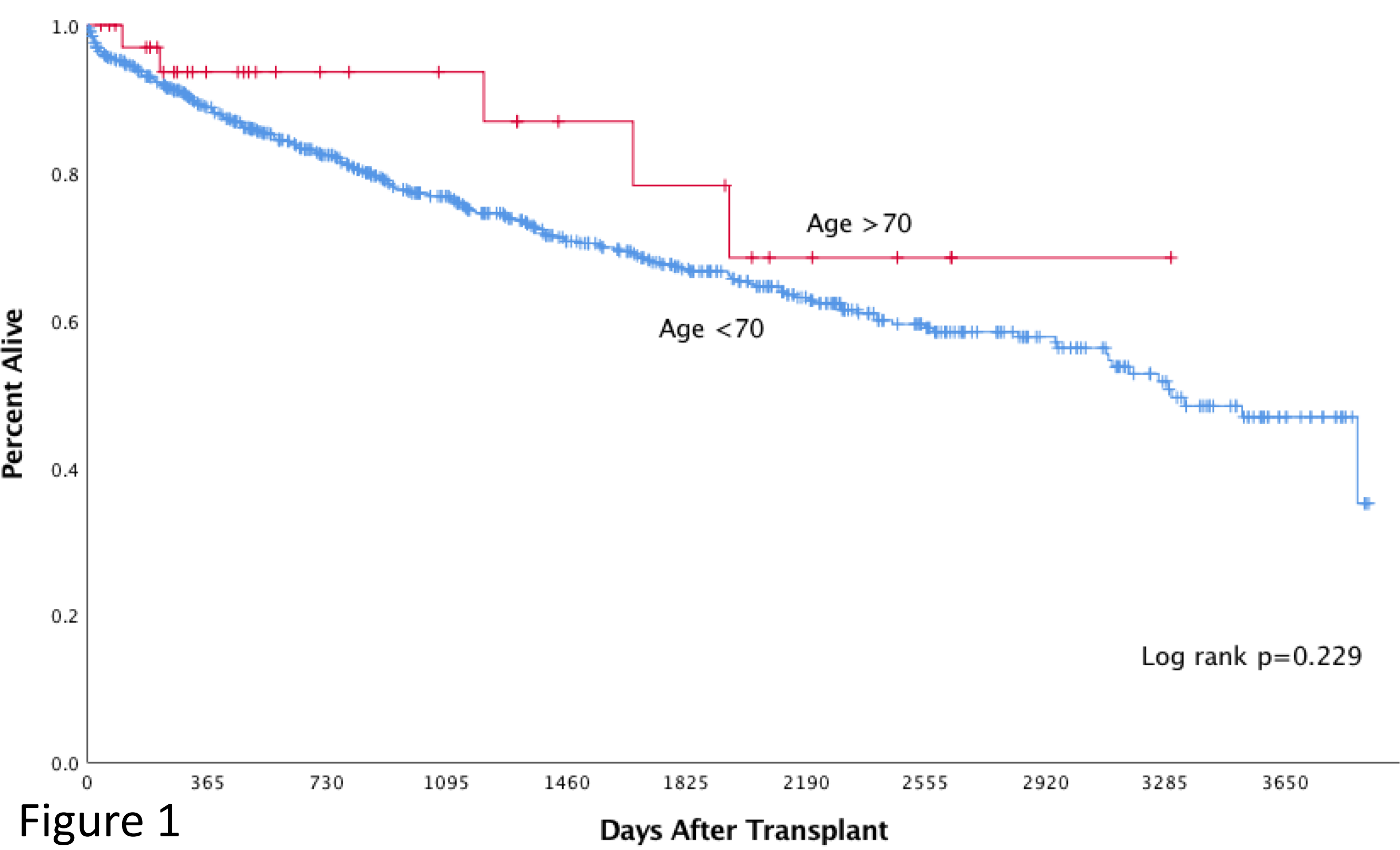
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Background

Advanced recipient age has been associated with increased mortality in the year following lung transplantation (LT). Adjustment of the lung allocation score to prioritize sicker patients has resulted in a greater proportion of older patients being listed for LT. In the most recent ISHLT registry report, 20% of LT recipients were 66 years of age or older.¹ Whereas prior studies examining outcomes of LT in older patients focused on patients over age 65, we aimed to investigate the impact of a recipient age greater than 70 on outcomes after LT.

Methods

We performed a retrospective cohort study comparing demographics, transplant procedures, and outcomes of patients aged <70 to those >70 who underwent LT at Barnes-Jewish Hospital (BJH) between 2007 and September 2017. Statistically, we compared means using student’s t-test, examined survival using Kaplan-Meier analysis and compared groups using the log-rank test.



	Survivors (n=31)	Non-survivors (n=5)
Median age	72.36	70.96
Male	22 (71%)	4 (80%)
Median LOS (days)	17	56
ILD diagnosis	26 (84%)	3 (60%)
Bypass	21 (68%)	5 (16%)
Bilateral	31 (100%)	4 (80%)
Median follow-up (days)	474	1204

Table 1

Results

Between 2007 and 2017, 712 lung transplants were performed at BJH. Of these, 36 (5.1%) were performed in patients over 70 years of age. Follow-up for these patients ranged from 0.1 to 9.1 (median 1.4) years. Compared to those under 70 years of age, there was no significant difference in survival (see Figure 1). Of those over 70 years of age, 26/36 (72%) were male and 29/36 (80%) were transplanted for interstitial lung disease. The remaining 7 patients were transplanted for obstructive lung disease.

The majority of these (61%) took place after 2014. 35/36 (97%) were bilateral procedures. 22 patients over 70 years of age (61%) required the support of cardiopulmonary bypass and 1 required extracorporeal life support after transplant. 8 (22%) underwent tracheostomy in the period following transplantation. The median length of stay after transplant was 17.5 days (range 9 to 97 days). All patients were discharged home from the hospital. 34/36 patients remain alive with a mean follow-up length of 2.7 years (range 0.2 to 9.0 years). 12/36 (33%) have developed CLAD.

Compared to survivors, non-survivors were more likely to be younger and have longer lengths of hospital stay (see table 1).

Conclusion

In appropriately selected patients over 70 years of age, lung transplantation can be associated with acceptable short and intermediate term outcomes. Longer term follow-up will be necessary to clarify the impact of advanced recipient age on outcomes following LT.

References

1. 2017 ISHLT Registry Report Slides, accessed 4/2/2018 at <https://www.isHLT.org/registries/slides.asp?slides=heartLungRegistry>.

None of the authors will discuss off label use and/or investigational use of any drugs or devices. None of the authors have any financial relationships to disclose related to this presentation.