278 Treatment requirements and associated costs with lung transplantation in adults with cystic fibrosis

T. Tse[1,2], P. Hopkins[1], K. McNeil[1,2], L. Nissen[2], S.C. Bell[1,2]. [1]*The Prince Charles Hospital, Brisbane, QLD, Australia;* [2]*University of Queensland, Brisbane, QLD, Australia*

Background: There is limited information about treatment burden (& its monitory cost) in advanced CF lung disease prior to & after successful lung transplantation (LTx). The co-location of the Adult CF Centre & the Lung Transplant Service at TPCH provided an opportunity to assess the treatment requirements and costs.
Methods: Length of stay, hospitalisation episodes, OPD visits, and cost of hospital-based treatment were assessed (total/medication) utilising transition II & hospital pharmacy databases for patients who underwent LTx from 1996 to 2005. Six-monthly blocks were assessed for 24 months prior to & after LTx.
Results: 17 patients were assessed (mean age±sd, gender%). All had advanced lung disease (mean FEV1±SD) six months prior to LTx, (0.7±0.3 litres, 19.2±6.7% predicted, BMI 20.8±3.2 kg/m^2). Mean FEV1 was significantly improved post-LTx and remained stable over 24 months. Length of stay increased over the 24 months pre-LTx ($F = 2.7$, $p < 0.001$) and decreased over the 24 months post-LTx. The first six months post-LTx had equivalent hospital admission days as the six months pre-LTx ($p = 0.45$). Similar patterns were seen for hospital episodes and OPD attendances. Medication & total hospital-based costs tended to increase in the 24 months prior to LTx, although the medication/total cost ratio was stable. Medication & total costs were significantly higher in the first six months following LTx, compared with the equivalent period pre-LTx, however, decreased to pre-LTx levels following the first six months.
Conclusions: Following recovery from LTx (six months post-LTx) costs returned to pre-LTx levels & hospital-based interventions (admissions, OPD attendances) fell to levels well below that seen prior to LTx.

279 Malignancies and lung transplant

G. Cimino[1], I. Halili[1], D. Russo[1], M. Rolla[1], C. Scacchi[1], S. Quattrucci[1]. [1]*Pediatric Department, Cystic Fibrosis Center, University of Rome "La Sapienza", Roma, Italy*

Long-term survival after lung transplantation (Tx) has significantly improved during the last 10 years. Neoplastic diseases are important complications.
We have followed 60 lung transplantation recipients (54 with cystic fibrosis and 6 with BPCO) during the period november 1996 up to now. Their immunosuppressive regime therapy was based on a calcineurin inhibitor (cyclosporine or tacrolimus), an antimetabolic agent (azathioprine) and steroids.
During the follow-up 8 patients (4 females) developed maglignant neoplastic complications. The mean time of occurrence after transplantation was 50 months (range 3–84). 4 patients (2 females) developed non-Hodgkin lymphoma (NHL) (56 months after Tx, range 3–80); one male patient infiltrative squamous epithelioma (ISE) 84 months after Tx; one female patient colon cancer 3 months after the re-Tx; one patient uterine cancer 60 months after lung Tx; one male patient laryngeal cancer 36 months after Tx. All patients have reduced immunosuppression therapy during the follow-up. Of these, 4 patients (2 with NHL, 1 with colon cancer and 1 with laryngeal cancer) died due to neoplastic dissemination; one patient with uterine cancer underwent hysterectomy but died after 3 years due to BOS. Three patients (two with NHL and one with ISE) underwent surgery therapy and chemotherapy and they are alive, 9, 24 and 40 months after this therapy, respectively.
Malignancies after lung Tx are important complications; A multidisciplinary approach is needed, in order to obtain precocious diagnosis and establish an adequate therapy.

280* CF pediatric lung transplantation single center experience

R. Souilamas[1], R. Guillemain[1], V. Boussaud[1], C. Amrein[1], P. Chevalier[1], I. Sermet[2], S. Vrielynck[2], S. Pelluau[3], C. Heilbroner[3], G. Lenoir[2]. [1]*Lung transplant unit, Europeen Georges Pompidou Hospital, Paris, France;* [2]*General pediatric, Necker hospital, Paris, France;* [3]*Itensive care unit, Necker hospital, Paris, France*

Purpose: Review of single center experience of lung transplantation in pediatric patients with end-stage disease.
Methods and Materials: A chart review was performed. 62 patients had lung transplantation. We describe surgical techniques, follow up, and survival.
Results: Between 1990 and december 2007, among 62 patients accepted in the program e. The age of the recipients ranged under 10 years old (n = 14) (group 1), between 10 and 14 years old (n = 20) (group 2), and between 14 and 18 (n = 28) (group 3). All patients had severe end stage disease at the time of transplantation. The types of transplantation performed were: bilateral lung transplant (n = 40), double lobar transplantation (n = 22), combined heart-lung-liver (n = 5), combined lung-liver (n = 8). Cardiopulmonary bypass was used in 76 on 79 patients. Four of these patients were managed and transplanted in the high emergency system. One of them died 1 month later. For the other patients, the post-operative course was acceptable. The global survival actuarial survival was 95% at 1 year, 52% at 5 years, and 38% at 10 years. The 5 years survival for the groups 1, 2 and 3 is respectively 80%, 58% and 55%. The 5 years incidence of BOS is 48%.
Conclusions: This report suggests that the end-stage CF disease is the most important indication (77%) in pediatric lung transplantation with an acceptable outcome and survival, even in the high emergency system.

281* Fifteen years of lung transplantation (LTx) in patients with cystic fibrosis (CF): the Zurich experience

M. Hofer[1], C. Schmid[1], S. Irani[1], R. Speich[1], E.W. Russi[1], W. Weder[1], A. Boehler[1]. [1]*University Hospital, Adult CF unit and lung transplant program, Zürich, Switzerland*

Background: There is an ongoing debate worldwide whether LTx improves survival in CF, especially in younger patients.
Aim: To analyze post-transplant survival in CF patients in our program.
Methods: All CF patients transplanted since 11/1992 (start of LTx program) were included. Univariate and multivariate Cox regression analysis were used for the following parameters: Age at LTx, date of LTx, gender, body mass index (BMI), diabetes status (DM), bone mineral density (T-score) of hip (FN) and lumbar spine (LS), pre-LTx FEV1 and Liou-Raw-Score.
Results: 80 (35%) of 231 LTx were performed for CF (39 (49%) female, 11 (13.8%) <18 years). At LTx mean age was 26.2±8.0 y (range 12.3–51.8), pre-LTx FEV1 830±250 ml, 27±7% of predicted, BMI 17.3±2.8 kg/m^2, FN-T-score −2.2±8 and LS-T-score −2.8±1.2. 31 (46%) had DM and Liou-Raw score was −20±17, resulting in an estimated 5-year survival without LTx of 33±14% compared to post-LTx 5-year survival of 67±6%. 1-, 3-, 5- and 10-year survival after LTx was 86±4, 73±5, 67±6 and 60±7%, respectively. In the 53 (66%) LTx since 1/2000, 1-, 3- and 5-year survival was 90±4, 80±6 and 69±7%, respectively. In the univariate Cox regression analysis LTx performed more recently and diagnosis of DM positively influenced survival, while young age (<18 y) had no negative impact. In multivariate analysis, only DM positively influenced survival.
Conclusion: In our LTx program survival after LTx for CF is better compared to the International Registry and 5-year survival with LTx is much higher compared to survival without LTx calculated according to the Liou-model. We could not find a negative influence of age at LTx on survival whereas later time of LTx and DM seemed to positively influence survival.