



LETTERS TO THE EDITOR

End-stage silicosis and lung transplantation: A way forward



Silicose em estágio terminal e transplante pulmonar: Um caminho a seguir

To the Editor:

Lung transplantation is an available and accepted therapy for the management of a wide range of severe lung disorders.¹ Silicosis is a progressive, fibrotic, occupational lung disease. End-stage silicosis is one of the accepted indications for lung transplantation, although there is little published data on this topic.

The aim of our study was to investigate the selection of recipients and follow-up of lung transplantation for silicosis.

Data from all lung transplant patients with silicosis followed at Centro Hospitalar São João between 2008 and 2013, were retrospectively analyzed.

Six males with a mean age of 55.5 ± 6.9 years underwent lung transplantation for silicosis. Of the 6 patients, 3 subjects worked in water exploration wells, 1 was a sandblasting worker, 1 slate mine worker and 1 quarry worker. At the time of referral for lung transplant, functional lung characteristics were as follows: FVC $50.20 \pm 10.8\%$ predicted and FEV1 $40.48 \pm 7.9\%$ predicted. The mean pulmonary artery pressure was 61 mm Hg estimated by echocardiography. Mean time between the first observation and lung transplant was 18.5 months. All patients underwent single lung transplantation, 4 patients underwent left lung transplantation. There was no perioperative mortality, although two patients developed primary graft dysfunction after transplant. During follow-up, two recipients had cytomegalovirus infection. All recipients are alive with a mean follow-up time of 32.8 ± 17.2 months, with a good quality of life (measured by the Portuguese version of the Medical Outcomes Study, Short Form-36,³ presented as the median of the subscales: physical-function 54.0 ± 39.1 , general health 52.4 ± 25.7 , vitality 54.0 ± 19.5 , social functioning 70.0 ± 31.4 , mental health 56.8 ± 19.9) and improved lung function (Table 1).

Despite the global efforts of prevention, silicosis remains a worldwide occupational lung disease. There is no proven

Table 1 Lung functional parameters of patients before and after lung transplant.

	Before transplantation	After transplantation
FVC, % predicted	50.20 ± 10.8	60.80 ± 11.4
FEV1, % predicted	40.48 ± 7.9	73.95 ± 16.4
FEV1/FVC ratio	63.47 ± 17.2	66.38 ± 11.7

specific therapy for silicosis² and this disease can be a lethal with poor prognosis. Our study demonstrated that selected patients with end-stage silicosis can benefit from lung transplantation. This study can also contribute to the current knowledge about this specific and rare indication for lung transplantation.

Conflict of interest

The authors have no conflicts of interest to declare.

References

- Orens JB, Estenne M, Arcosy S, Conte JV, Corris P, Egan JJ, et al. International guidelines for the selection of lung transplant candidates: 2006 update – a consensus report from the pulmonary scientific council of the international society for heart and lung transplantation. *J Heart Lung Transpl.* 2006;25:745–55.
- Leung CC, Yu IT, Chen W. Silicosis. *Lancet.* 2012;379:2008–18.
- Ferreira PL. Development of the Portuguese version of MOS SF-36: Part I. Cultural and linguistic adaptation. *Acta Med Port.* 2000;13(1–2):55–66.

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