

Special article

Spanish Heart Transplantation Registry. 25th Official Report of the Spanish Society of Cardiology Working Group on Heart Failure and Heart Transplantation (1984–2013)



Francisco González-Vílchez,^{a,b,*} Manuel Gómez-Bueno,^c Luis Almenar,^d María G. Crespo-Leiro,^e José M. Arizón,^f Jesús Palomo,^g Juan Delgado,^h Eulalia Roig,ⁱ Ernesto Lage,^j and Nicolás Manito^k, on behalf of the Spanish Heart Transplantation Teams

^aRegistro Español de Trasplante Cardíaco, Sección de Insuficiencia Cardíaca y Trasplante Cardíaco, Sociedad Española de Cardiología, Madrid, Spain

^bServicio de Cardiología, Hospital Universitario Marqués de Valdecilla, Santander, Cantabria, Spain

^cServicio de Cardiología, Clínica Puerta de Hierro, Majadahonda, Madrid, Spain

^dServicio de Cardiología, Hospital Universitario y Politécnico La Fe, Valencia, Spain

^eServicio de Cardiología, Complejo Hospitalario Universitario de A Coruña, A Coruña, Spain

^fServicio de Cardiología, Hospital Universitario Reina Sofía, Córdoba, Spain

^gServicio de Cardiología (Adultos), Hospital Universitario Gregorio Marañón, Madrid, Spain

^hHospital Universitario 12 de Octubre, Madrid, Spain

ⁱHospital Universitario de la Santa Creu i Sant Pau, Barcelona, Spain

^jHospital Universitario Virgen del Rocío, Sevilla, Spain

^kHospital Universitario de Bellvitge, L'Hospitalet de Llobregat, Barcelona, Spain

Article history:

Available online 11 November 2014

Keywords:

Heart transplantation
Registry
Survival

ABSTRACT

Introduction and objectives: The present article reports the characteristics and outcome of heart transplantation in Spain since it was first performed in May 1984.

Methods: We provide a descriptive analysis of the characteristics of the recipients, the donors, the surgical procedure, and results of the heart transplantations performed in Spain until 31 December 2013.

Results: During 2013, a total of 248 transplantation procedures were carried out, bringing the time series to a total of 7023 transplantations. The temporal analysis confirms a significant deterioration in the clinical profile of the recipients (higher percentage of older patients, severe renal failure, insulin-dependent diabetes mellitus, previous heart surgery, mechanical ventilation), of the donors (higher proportion of older donors and greater weight mismatch), and of the procedure (higher percentage of emergency transplantations which, in 2013, reached 49%, and with ischemia times > 240 min). There was a marked increase in the use of circulatory assist devices prior to transplantation which, in 2013, were employed in 25.2% of all the patients. The survivals at 1, 5, 10, and 15 years were 76%, 65%, 52%, and 37%, respectively, and have remained stable since 1995.

Conclusions: Heart transplantation activity in Spain remains stable in recent years, with around 250 procedures a year. Despite the clear deterioration in the clinical characteristics of the donors and recipients, and lengthening of the operative times, the results in terms of mortality continue to be comparable to those reported in our neighboring countries, and a growing use of circulatory assist devices prior to transplantation is confirmed.

© 2014 Sociedad Española de Cardiología. Published by Elsevier España, S.L.U. All rights reserved.

Registro Español de Trasplante Cardíaco. XXV Informe Oficial de la Sección de Insuficiencia Cardíaca y Trasplante Cardíaco de la Sociedad Española de Cardiología (1984–2013)

RESUMEN

Introducción y objetivos: El presente artículo presenta las características y resultados del trasplante cardíaco en España desde que empezó su actividad en mayo de 1984.

Métodos: Se realiza un análisis descriptivo de las características de los receptores, los donantes, el procedimiento quirúrgico y los resultados de los trasplantes cardíacos realizados en España hasta el 31 de diciembre de 2013.

Palabras clave:

Trasplante cardíaco
Registro
Supervivencia

* Corresponding author: Servicio de Cardiología, Hospital Universitario Marqués de Valdecilla, Avda. Valdecilla s/n, 39008 Santander, Spain.

E-mail address: cargvf@gmail.com (F. González-Vílchez).

Collaborators: Manuel Cobo Belaustegui, Gregorio Rábago, Félix Pérez-Villa, José L. Lambert, Manuela Camino, Domingo Pascual, María T. Blasco, Luis de la Fuente, Luis García-Guereta, and Dimpna C. Albert.

Resultados: Durante 2013 se han realizado 248 procedimientos, con lo que la serie histórica consta de 7.023 trasplantes. El análisis temporal confirma un empeoramiento significativo del perfil clínico de los receptores (mayor porcentaje de pacientes añosos, insuficiencia renal grave, diabetes mellitus insulino dependiente, cirugía cardíaca previa, ventilación mecánica), los donantes (mayor porcentaje de donantes añosos y mayor discordancia de peso) y el procedimiento (mayor porcentaje de trasplante urgente, que en 2013 alcanzó el 49%, y con tiempos de isquemia > 240 min). Hay un incremento notable del uso previo al trasplante de dispositivos de asistencia circulatoria, que en 2013 ha llegado al 25,2% del total de pacientes. Las supervivencias a 1, 5, 10 y 15 años son del 76, el 65, el 52 y el 37% respectivamente, y permanecen estables desde 1995.

Conclusiones: La actividad de trasplante cardíaco en España permanece estable en los últimos años, con alrededor de 250 procedimientos al año. A pesar del claro empeoramiento en las características de los donantes, los receptores y los tiempos quirúrgicos, se mantienen unos resultados de mortalidad comparables a los de los países vecinos y se confirma un uso creciente de los dispositivos de asistencia circulatoria antes del trasplante.

© 2014 Sociedad Española de Cardiología. Publicado por Elsevier España, S.L.U. Todos los derechos reservados.

Abbreviations

RETC: Spanish Heart Transplantation Registry (*Registro Español de Trasplante Cardíaco*)

INTRODUCTION

Since 1991, the Spanish Heart Transplantation Registry (*Registro Español de Trasplante Cardíaco* [RETC]) has published a report on the clinical and surgical characteristics and the overall results of the heart transplantation procedures performed in Spain ([Appendix](#)).^{1–24} The present article describes the data corresponding to the population of patients undergoing transplantation up to 31 December 2013. The major strength of the RETC has been identified as the comprehensive inclusion and update of all the heart transplantation procedures performed in all the hospitals in Spain since May 1984, regardless of their characteristics and outcomes. Moreover, data are collected prospectively and stored in a common database, in accordance with criteria agreed on by consensus and updated by all the transplantation teams.

METHODS

Patients and Centers

Of the 19 centers that have contributed data to the RETC, 18 remain active at the present time ([Table 1](#)). The number of procedures performed each year is shown in [Figure 1](#). The entire series encompasses 7023 procedures. Data, including follow-up information, are missing from the records of 12 cases, which have not been included in the analyses; thus, the final sample consisted of 7011 cases. Of the 248 procedures carried out, 29 (11.7%) were performed in pediatric patients (age < 16 years). The types of procedures documented in 2013 and in the time series as a whole are summarized in [Table 2](#).

Procedures

The database consists of 175 clinical variables, established by consensus among all the transplantation teams, which include data on the recipient, donor, surgical technique, immunosuppression, and follow-up. Since 2013, the data are introduced and updated electronically, in real time, by means of an application specifically designed for this purpose and available on the internet.

The database support is a Microsoft Excel file. This procedure replaced the preceding approach, in which each center conveyed the data to the director of the registry by e-mail in Microsoft Access format. Database management, quality control, and statistical analysis are outsourced to a CRO (contract research organization), at the present time, ODDS, S.L.

Ethics committee approval, auditing, and registration with the Spanish Ministry of Health, Social Services and Equality meet the requirements of the Spanish Data Protection Law 15/1999.

Statistical Analysis

The continuous variables are expressed as mean (standard deviation) and the categorical variables as percentages. The results were classified by transplantation year, an approach for which the overall sample was divided into six 5-year groups (1984–1988, 1989–1993, 1994–1998, 1999–2003, 2004–2008, and 2009–2013). The between-group differences were analyzed using a nonparametric test for the time trend (Kendall's tau). Survival curves were calculated using the Kaplan-Meier test and were compared using

Table 1

Centers Participating in the Spanish Heart Transplantation Registry (1984–2013) (Listed in Chronological Order of the Performance of Their First Transplantation)

1.	Hospital de la Santa Creu i Sant Pau, Barcelona
2.	Clínica Universitaria de Navarra, Pamplona
3.	Clínica Puerta de Hierro, Majadahonda
4.	Hospital Marqués de Valdecilla, Santander
5.	Hospital Reina Sofía (adult and pediatric), Córdoba
6.	Hospital Universitario y Politécnico La Fe, Valencia
7.	Hospital Gregorio Marañón (adult and pediatric), Madrid
8.	Fundación Jiménez Díaz, Madrid (1989–1994)
9.	Hospital Virgen del Rocío, Sevilla
10.	Hospital 12 de Octubre, Madrid
11.	Hospital Universitario de A Coruña (adult and pediatric), A Coruña
12.	Hospital Bellvitge, L'Hospitalet de Llobregat, Barcelona
13.	Hospital La Paz (pediatric), Madrid
14.	Hospital Central de Asturias, Oviedo
15.	Hospital Clínic, Barcelona
16.	Hospital Virgen de la Arrixaca, El Palmar
17.	Hospital Miguel Servet, Zaragoza
18.	Hospital Clínic, Valladolid
19.	Hospital Vall d'Hebron (pediatric), Barcelona

Download English Version:

<https://daneshyari.com/en/article/3017135>

Download Persian Version:

<https://daneshyari.com/article/3017135>

[Daneshyari.com](https://daneshyari.com)