

**Malignancy after pediatric heart transplantation: a multi-institutional study**

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**Background:** Post-transplant neoplasias are an important cause of morbidity and can potentially be a fatal complication after pediatric heart transplantation (HT). We sought to better determine the frequency, type of malignancy and time of presentation.

**Methods:** We reviewed data on patients follow up at the Spanish Post-Heart-Transplant Tumor Registry from 1984 to 2009. A total of 201 HT was undertaken in patients aged < 18 years old. The data analyzed in the first stage of the study were the incidence of neoplasia, the clinical type and the median follow-up time of diagnosis after HT.

**Results:** Malignancy was diagnosed in 22 patients (10,9%). Post-transplant lymphoproliferative disorders (PTLD) were found in 16 (72,7%) cases. 2 (9%) patients had skin cancer and 3 (13,6%) other tumors. The median follow-up time for the PTLD group was 7,2 years, for the skin cancer group 14,4 years and for the group with other neoplasia was 5 years.

**Conclusions:** About 11% of pediatric HT recipients develop malignancy being PTLD the most frequent (>70%). Further studies should analyze the primary EBV infection, antiviral prophylaxis, the induction treatment and the effects of the new immunosuppressors on the development of PTLD.