Post-transplant lymphoproliferative disorder after heart transplantation

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Post-transplant lymphoproliferative disorder (PTLD) is a heterogeneous group of lymphoid neoplasms associated with immunosuppression following solid organ transplantation or allogeneic hematopoietic stem cell transplantation. Mismatch for cytomegalovirus (CMV), such as when a seronegative recipient receives an organ from a seropositive donor, was shown to be associated with a seven-fold increase in PTLD. A 20-year-old male patient was admitted to the hospital due to back and abdominal pain. He had underwent a heart transplant 6 years ago due to postmyocarditic dilated cardiomyopathy and soon after the transplant, he had developed CMV pneumonitis. At examination, abdominal ultrasound showed multiple lesions of the liver, and patohystology of the lesion biopsy revealed PTLD, i.e. Non-Hodgkin's diffuse large B cell lymphoma, for which the patient received 8 cycles of chemotherapy (R-CHOP protocol). Nine months after the first dose, the patient was admitted to the hospital due to simptoms of heart failure (NYHA IV) and echocardiography revealed significantly reduced cardiac function (LVEF 25%). Graft rejection was excluded with heart biopsy and it was concluded the etiology of heart failure was anthracycline (Doxorubicin) toxicity. Given the severity of the patient's condition, he was again listed for heart transplant, and ultimately, retransplanted. Eight years after the retransplant, the patient is in excellent overall condition. Heart transplant patients have about a 1- 6% risk to develop the PTLD. The incidence of chronic Doxorubicin cardiotoxicity is about 1.7%. This patient had developed both, but, fortunately, with timely and right therapy the outcome can be successful.