Clinical experience with recombinant tissue plasminogen activator in the management of thrombosis in children

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Thrombotic events may complicate the clinical course of many neonatal and pediatric pathologic processes. The primary treatment goal for this condition is the restoration of vascular flow through surgical revascularization or pharmacological dissolution of the thrombus. There are a number of practical advantages to the routine use of recombinant tissue plasminogen activator (rTPA) for non-invasive thrombolysis. Experiences about rTPA use in children are less than the adults but getting increased. We conducted a retrospective review of 11 patients who received rTPA at our institution (pediatric cardiology, pediatric oncology and neonatal intensive care unit; intracardiac thrombus (n=5), prosthetic heart valve thrombus (n=1), vascular complication (n=5)), six of whom showed full recovery. One patient needed surgical intervention because of minor bleeding complication. Thrombi have shrunken but have not dissolved completely in two cases, and one newborn patient died from sepsis without observing the fibrinolytic response. Thrombolytic therapy represents an alternative to surgery in children. It is effective, safe and can be easily administered.