Thromboembolic events in neonates are very rare. They are often associated with severe disease affecting the newborn or are secondary to central venous lines or arterial catheters. Most of the described cases of thromboses of the iliac or femoral arteries are associated with cardiac catheterisation or femoral invasive blood pressure monitoring. The relationship between single umbilical arteries and an increased incidence of structural and chromosomal anomalies is well known, but a higher rate of thromboembolic disease in infants with single umbilical arteries has not been described. Rt-PA (recombinant tissue plasminogen activator) has been successfully used in small studies and numerous case reports. To date controlled clinical trials giving guidelines for antithrombotic therapy using rt-PA are still lacking. We report the clinical course of a 700 g premature male, who was born by Caesarean section at 29 + 6 gestational weeks. On the fifth day the baby suffered from arterial thrombosis of the right pelvis axis. Antenatally a single umbilical artery was identified. Iliac arteries on the involved site appeared hypoplastic. Additionally, the prothrombin G20210A mutation was found. The patient was treated successfully using recombinant tissue plasminogen activator. In the case of a high risk of limb or organ loss due to arterial thrombosis, thrombolysis using rt-PA is justified. Appropriate rt-PA treatment has been studied for the
adult but not the paediatric population. Hence, well-designed clinical trials are necessary to determine the pharmacokinetics and dynamics of thrombolytic agents in children.