Introduction Neonatal subcutaneous fat necrosis is a rare condition. It’s due to a transient panniculitis and present as an erythematous nodules and indurate plaques over bony prominences that appears in the first weeks of life. We aim to identify the risk factors, clinical aspects, and outcomes of this rare condition.

Methods It’s a retrospective study including five cases of subcutaneous fat necrosis hospitalized in the neonatal intensive care unit of Sfax between 2016 and 2019.

Results Two boys and three girls were registered. Only one newborn was a preterm of 35 weeks of amenorrhea. Two mothers had gestational diabetes and the others had uncomplicated pregnancies. Four newborns presented birth asphyxia requiring resuscitation in the delivery room. The median 1 – 5 minutes Apgar scores were respectively 5.8 – 7.3. Five newborns were macroglossic. The others had a normal birth weight. Subcutaneous fat necrosis lesions were noticed by the two first weeks of life in all cases with a mean of 7.4 days (4 to 18 days). All newborns had diffuse skin lesions. It was mainly localized on the sacro-coccygeal region, back, shoulders and limb roots. All skin lesions resolved spontaneously within two to three months except for one newborn who presented a liquefaction of the content of one of his lesions by the day 11 of life. It was a median lesion measuring 6*10 cm localized in the back. Monitoring and laboratory analysis showed thrombocytopenia that preceded the onset of the lesions in all cases. It was severe in 3 cases with an average of 40 000 (27 000 to 58 000). Three newborns developed hypercalcemia. It was severe for only one newborn with a serum level reaching 4.42 mmol/L by day 30 of life. Follow-up showed associated nephrocalcinosis in two cases and metastatic skin calcifications in one case. For the newborn with severe hypercalcemia, as initial treatment he received low calcium and vitamin D formula, hyperhydration, intravenous methylprednisolone and furosemide. Due to a lack of response, we started treatment with pamidronate with a favorable evolution. Normalization of the serum calcium level as well as the renal ultrasound was finally obtained by the age to 18 days. All newborns had diffuse skin lesions. It was statistically processed using methods of descriptive statistics.

Conclusion Subcutaneous fat necrosis is a self-limited condition with a good prognosis generally. However, it may be associated to rare but serious complications especially thrombocytopenia and hypercalcemia. A long term clinical and biological follow-up for the possible onset of these complications is then necessary.

Background Acute kidney injury is a serious clinical problem in neonatal intensive care unit. It is defined as a sudden decrease in kidney function resulting in derangements in fluid balance, electrolytes, and waste products. SNAPPE 2 score is a useful tool for assessing the severity of the disease that correlates with neonatal mortality.

Objective The aim of the study was to determine the incidence of AKI and the role of SNPPE 2 score in predicting mortality and morbidity in AKI in neonates.

Methods The study was designed as a prospective, clinical, epidemiological investigation conducted in the period of three years, which included 100 newborn infants (50 with AKI and 50 without AKI) hospitalized in NICU of University Children’s Hospital. The severity of the illness of hospitalized newborn infants was estimated with SNAPPE 2 score realized in the first 12 hours of admission in NICU. Medical data records of admitted neonates with AKI were analyzed. The material was statistically processed using methods of descriptive statistics.
Results During the study period 770 newborns were hospitalized in NICU due to various pathological conditions and 50 newborns have been selected with AKI. As the control group, 50 newborns were taken with comparable associated pathological conditions, but without kidney injury. The calculated prevalence of AKI in neonates was 6.4%. Most of involved neonates in the study in both groups (AKI and non AKI) were born at term (64% and 54%) with predominance of male (68% and 60%). The mortality rate was higher in newborns with AKI than control group (36% vs 24%). In half of newborn infants with AKI predominate severe score level, while in control group predominate median score level (42%). There is a significant difference between the mean score value in neonates with AKI and lethal outcome compared to neonates with AKI without lethal outcome (70.73 ± 18.6 vs. 40.2 ± 16.6).

Conclusion Acute kidney injury is a life threatening condition with still high mortality rate. The severity of the illness of hospitalized newborn infants in NICU is estimated by SNAPPE 2 score. The high score level is associated with the severity of the disease and higher mortality. Appropriate treatment of newborns with severe kidney injury improves the outcome and reduces the mortality of the disease.

Conclusion The severity of the initial neonatal pathology conditionned the prognosis of the newborns transported which is also influenced by the conditions of the transport.

Introduction Non-catheter-related aortic thrombosis is a rare condition in neonates. It may be life threatening or leads to severe complications. It occurrence requires looking for an underlying congenital prothrombotic condition.

Methods We report a case of a spontaneous aortic thrombosis in a newborn revealing an association of factor V Leiden and hyperhomocysteinemia.

Results A full term male was born by c-section. He presented immediate severe respiratory distress. Echocardiography performed at the second day of life, showed persistent pulmonary hypertension. He required high frequency oscillatory ventilation and inhaled monoxide administration. Initial respiratory stabilization was noted. But at 11 days age, we noted an increase in oxygen requirement; a tachycardia, a hepatomegaly, an edema and femoral pulses were no more detected. Control echocardiography showed a left ventricular dysfunction with an ejection fraction of 30%. The abdominal doppler ultrasound found an extensive thrombosis in infrarenal abdominal aorta. Thrombolytic treatment was not administrated as a subarachnoid hemorrhage was found in the cerebral ultrasound. After 48 hours of mechanical ventilation and inotropic support, hemodynamic and respiratory stabilization was obtained. Control echocardiography at day 14, showed an ejection fraction of 50%. The biological assessment revealed heterozygosis R506Q mutation for the factor V (factor V Leiden) and heterozygosis MTHFR C677T mutation (hyperhomocysteinemia). The aortic thrombosis has been spontaneously lysed and disappeared within 10 months. At 4 years, his physical examination is normal.

Conclusions Till now, there are no clear established guidelines concerning the management of arterial thrombosis. We insist that the blood clotting screen must be systematic and complete to look for association of congenital prothrombotic conditions which would increase the thrombotic risk.

Introduction Full-term newborns mortality’s is a public health issue because of its unexpected impact either on the infant’s family and the medical staff, as opposed to the preterm death. Therefore, we aim to determine factors and causes associated with hospital mortality of full-term newborns.