platelet counts $\leq 40 \times 10^9/L$ had minor bleeding. At platelet counts $>40 \times 10^9/L$ 59% of infants had minor bleeding.

Conclusion: Minor bleeding and in particular hematuria is common in thrombocytopenic neonates and appears to inversely correlate with gestational age but not absolute platelet count.

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L-6 IN CHILDREN WITH REACTIVE THROMBOCYTOSIS

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Background: Reactive thrombocytosis is associated with a variety of clinical conditions such as respiratory tract infections and iron deficiency anemia. IL-6 stimulates the release CRP. IL-6 stimulates thrombopoiesis. EPO may play an important role in reactive thrombocytosis.

Aims: To study the involvement of IL-6, relation IL-6 and CRP, and significance of EPO levels in patients with acute respiratory infections and thrombocytosis.

Methods: A prospective design was used. 61 patients with reactive thrombocytosis were admitted in the pediatric department with respiratory tract infections, during a 6 months period, respecting the inclusion criteria. All patients were classified as reactive thrombocytosis. The evaluated parameters included: platelet count, CRP, serum IL-6, Hb, MCV, MCHC, RDW, iron serum level and EPO.

Results: We investigated 61 patients with reactive thrombocytosis and acute infection, mean age was 19.47 months (std dev 18.5), mean CRP value was 12.9 (std dev 20.28) and IL-6 mean value was 8.53 (std dev 10.622).

In 62.96% of the patients with reactive thrombocytosis, levels of IL-6 and CRP were elevated. In 70.49% of the patients level of IL-6 was elevated. There was significant correlation between reactive thrombocytosis, IL-6 and CRP levels.

In 24.59% of patients IL6 and EPO were positive. 22.95% had confirmed iron deficiency anemia and both EPO and IL6 positive.

Conclusions: The results suggest a correlation between CRP and IL6 in children with respiratory infections. Thrombocytosis in these patients may

be the result of IL6 stimulating TPO and platelet production. No significant relationship between platelet counts and EPO levels was found.

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THE EFFECTS OF ERYTHROPOEITIN-BETA ON FERRITIN, RETICULOCYTE, HAEMOGLOBIN LEVELS AND BLOOD TRANSFUSION REQUIREMENTS IN VLBW INFANTS WITH ANAEMIA OF PREMATURITY

F.-C. Cheah, C.-K. Loh, A. Abd Samad, S. Ishak, R. Jaafar, Efficacy of Iron Treatment in Anaemia of Prematurity

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Aim: To study the effects of erythropoietin-beta in VLBW infants with anaemia of prematurity on their ferritin, reticulocyte, haemoglobin levels and transfusional requirements during the first month of treatment.

Methods: Routine blood sampling for ferritin, haemoglobin and reticulocyte counts were done weekly for VLBW infants receiving 750U/kg of erythropoietin in 3 divided doses per week and daily oral iron of 6mg/kg according to our unit policy.

Results: Over a 9-month period, 35 infants (17 males, 18 females) received erythropoietin. Their mean gestation was 29 ± 2 weeks and mean birthweight was 1.08 ± 0.24 kg. The median haemoglobin level pre-erythropoietin was 10.9g/dL; ferritin, 222mcg/L; and reticulocyte count, 2.9%. Erythropoietin was commenced after the first three weeks of life (mean, 23 ± 5 days; range, 13 to 33 days). The earliest response observed was a 2.5-fold increase in reticulocytes (median, 7.2%; $p < 0.01$) after one week of therapy (3 doses). After 3 weeks of treatment (9 doses), the average ferritin level decreased by 50% (median, 104mcg/dL; $p = 0.011$), but the haemoglobin maintained stable at 10.4g/dL vs the initial 10.8g/dL, $p = 0.25$. All but ten infants (29%) required blood transfusion because of concomitant illnesses or poor weight gain.

Conclusion: The use of erythropoietin-beta was associated with an early rapid increase in reticulocytes and a significant fall in ferritin levels. Monitoring and ensuring iron adequacy is vital to prevent iron-deficiency during erythropoietin therapy. Nine doses of erythropoietin-beta commenced at 3-4 weeks postnatal age maintained haemoglobin

levels above the blood transfusion threshold in the majority of our VLBW infants before hospital discharge.

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USEFUL EVALUATION OF THROMBOELASTOGRAPHY FOR COAGULATION DISORDERS IN CRITICALLY ILL PATIENTS

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Background and aim: Many of inflammation mediators are involved in the coagulation proteins activation. Then aim of study was evaluated useful of thromboelastography for coagulation disorders diagnosis in critically ill patients.

Methods: By a serial cases design, we realized during three months a study with patients in critical state during stay in a pediatric intensive care unit. Every patient blood sample (1 ml) was obtained by venous peripheral puncture, carrying out analysis with a digital thromboelastograph, using for processing two types of reagent; unique (kaolin) or cocktail (kaolin+heparinase). Dynamics of clot was analyzed by seven indicators and for comparison we established groups for gender, pathology, infection and type attention condition. Data analysis was by non parametric statistics.

Results: We included 53 samples of a similar number of patients. Most frequent boss of coagulation disorder was hypocoagulation state (31/58.94%). Sensibility test was 82% with 76% specificity. Time for achieve force of clot showed difference ($p=0.049$) between patients with or without infection, as well as, in alpha angle ($p=0.039$), maximum clot extend ($p=0.40$), global clot ($p=0.025$) and in index of coagulation ($p=0.036$) in agreement to the type of reagent. Difference not exist ($p>0.05$) between boys and girls, or by surgical and clinical conditions.

Conclusions: Thromboelastography is a useful tool for coagulation disorders diagnosis in critically ill patients. We suggest and promote his rationale use in more pediatric disorders and conditions. This avoid unnecessary transfusions and reduce cost of hospitable stay.

Key words: pediatric, hemostasia, coagulation disorders, laboratory tests, intensive care.

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NATIONWIDE FRENCH SURVEY ON THE ANALGESIC MANAGEMENT OF PAINFUL SICKLE CELL CRISIS IN THE PEDIATRIC EMERGENCY DEPARTMENT

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The French National Authority for Health (HAS) published in 2005 recommendations for the management of sickle cell disease in children. Are they implemented in Emergency Departments (ED)? Which are the analgesics used in ED for painful vaso-occlusive episode (PVOE) in children?

Objective: To determine the current management of PVOE in French pediatric ED.

Methods: A questionnaire on the management of PVOE was sent to all French pediatric ED.

Results: Eighty-five of 111 (76.6%) requested ED responded to the survey. The chiefs of 81.9% of ED reported having read the HAS recommendations. Fifty-three of 84 (63%) centers reported using nalbuphine for moderate PVOE. Intravenous morphine was used by 72 out of 83 (87%) centers for severe PVOE. Morphine use was reported by 91.5% of ED. Sixty seven percent of centers reported a titration of morphine in more than 60% of children. Patient Controlled Analgesia with morphine was reported in 45.8% of centers. In case of severe PVOE, only 31.4% thought that more than 60% of children were relieved with intravenous nalbuphine whereas 91.9% thought that this rate of relieve was obtained with intravenous morphine. Concerning nitrous oxide/oxygen, 69.9% of physicians declared that it was used for more than 60% of intravenous lines placements and 46.2% of physicians reported its use to increase continuous analgesia when morphine was insufficient.

Conclusion: Most French ED declare to follow the HAS recommendations. Nalbuphine is the most commonly used opioid for moderate PVOE and morphine for severe PVOE. Nitrous oxide/oxygen is widely used for PVOE.