Setting: The study was conducted in the Neonatal Intensive Care Unit Of Obstetrics and Gynecology Department, Ain Shams University Hospital.

Patients and Methods: Complete Prenatal, natal and postnatal history were taken, gestational age, Apgar Score assessment at 1.5 and 10 minutes also were evaluated. Laboratory tests including blood culture and CBC, CRP with titre and assessment of blood flow velocity in SMA (Superior Mesenteric Artery) at day 1 and day 7 of life including Peak systolic velocity (PSV), End diastolic velocity (EDV), Resistance index (RI) and pulsatility index (PI) were done upon enrollment of 65 neonates who subdivided into either preterm groups, hypoxic ischemic encephalopathy group and full term group.

Results: There was a significant difference between the three groups regarding PSV, EDV, and RI before and after feeding but there was no significant difference between them as regard PI before and after feeding in both day 1 and day 7. As for the qualitative data of the Doppler indices of SMA there was a significant difference between the three groups as regard the PI in day 1 (P = 0.022), PSV in day 7 P = (0.018), and EDV in day 7 (P = 0.040) but there was no significant difference between the three groups as regard PSV in day 1, EDV in day 1, RI in day 1 and day 7, and PI in day 7.

Conclusion: Doppler hemodynamic studies of SMA in preterm infants showed that change in resistive index parameter in response to small enteral feeds proved to have a highly significant difference with the dependent variable (feeding tolerance) which might be a good tool for the clinician in predicting early tolerance to enteral feeding.

A randomized trial of factor VIII and neutralizing antibodies in hemophilia a

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Background: Ain Shams hemophilia treatment center was established since 1974 with few hemophilia A children. The only available treatment was Cryo-precipitate. We publish in year 2000 very low titer of the neutralizing anti-factor VIII alloantibodies; possibly due to the strict use of the available Cryo. Four decades later; we started low Prophylaxis program for a selected group of compliant hemophilia A patients in a dose of 50 units/kg/week with good joint outcome. Five years later, the center joined the SIPPET trial.

Methods: SIPPET is a randomized trial to assess the incidence of factor VIII inhibitors among patients treated with plasma-derived factor VIII containing von Willebrand (vWF) factor or recombinant factor VIII. Forty-three child were enrolled from our center who met the eligibility criteria (age <6 years, severe hemophilia A, and no previous treatment with any factor VIII concentrate).

Results: 48 from our center out of 264 from all SIPPET patients underwent randomization and 43 were analyzed. High-titer inhibitors (>5 Bethesda units) developed in 6 of the 22 patients treated with plasma-derived factor VIII (3 patients had high-titer inhibitors) and in 9 of the 21 patients treated with recombinant factor VIII (6 patients had high-titer inhibitors). The cumulative incidence of all inhibitors was 27.3% with plasma-derived factor VIII and 43.3% with recombinant factor VIII; the cumulative incidence of high-titer inhibitors was 14.1% and 28.6%, respectively. Recombinant factor VIII was associated with 97% higher incidence than plasma-derived factor VIII (hazard ratio, 1.97). Our Results were consistent and not different from the whole data.

Conclusions: Patients treated with plasma-derived factor VIII containing vWF had a lower incidence of inhibitors than those treated with recombinant factor VIII. (Clinical Trials gov number, NCT01064284).

Microalbuminuria in obese children and adolescents and the metabolic syndrome

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Insulin resistance is a common feature of childhood obesity and is considered to be an important link between adiposity and development of type 2 diabetes mellitus and cardiovascular disease. It is also a major contributing factor to renal injury. Microalbuminuria (albumin excretion 20-200 mg/min or 30-300 mg/gram creatinine) is now considered an early marker of renal damage in non-diabetic patients.

Objectives: to evaluate the association of obesity and microalbuminuria among obese subjects and its relation to metabolic syndrome components.

Methods: This cross-sectional study was conducted on sixty-two obese children and adolescents randomly recruited from the Obesity Clinic, Pediatric Hospital, Ain-Shams University. Anthropometric data were collected, fasting serum insulin, glucose and serum lipid profile were measured. The homeostasis model assessment of insulin resistance (HOMA-IR) was used to calculate in vivo insulin resistance. Oral glucose tolerance test and urinary albumin concentrations were done.

Results: Microalbuminuria was detected in 18 cases (29%), metabolic syndrome in 4 cases (6.4%), impaired OGTT in 9.6%. Impaired fasting insulin and high serum insulin after 2 hours in OGTT in 3.2% of cases. Abnormal lipid profile was significantly associated with microalbuminuria.

Conclusion: Microalbuminuria is strongly associated with impaired fasting insulin, and abnormal lipid profile.

Pentoxifylline use for neuroprotection in neonates with hypoxic ischemic encephalopathy

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Background: Pentoxifylline has been used in neonates with diseases related to inflammation, free radical toxicity, or impaired microcirculation. It also showed neuroprotective effect in animal studies.

Aim: to study the short-term effects of pentoxifylline on clinical and oxidative stress in neonates with hypoxic-ischemic encephalopathy (HIE).

Patients and Methods: we conducted a prospective randomized control study on 20 neonates > 36 weeks gestation, diagnosed as HIE (12 sever and 8 moderate HIE). Neonates were