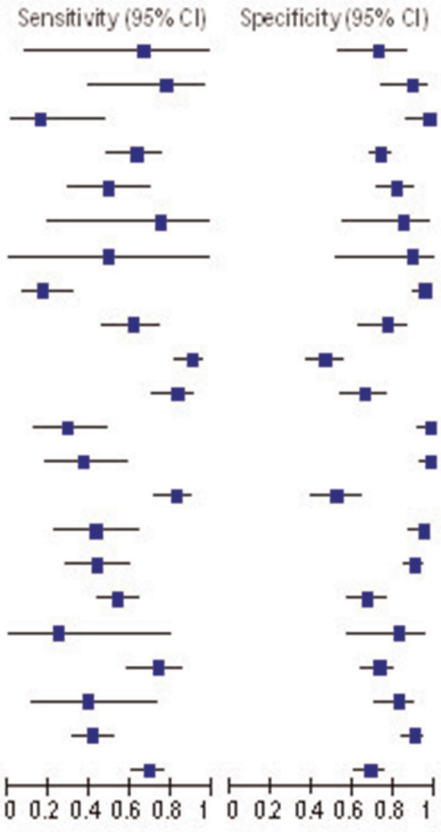
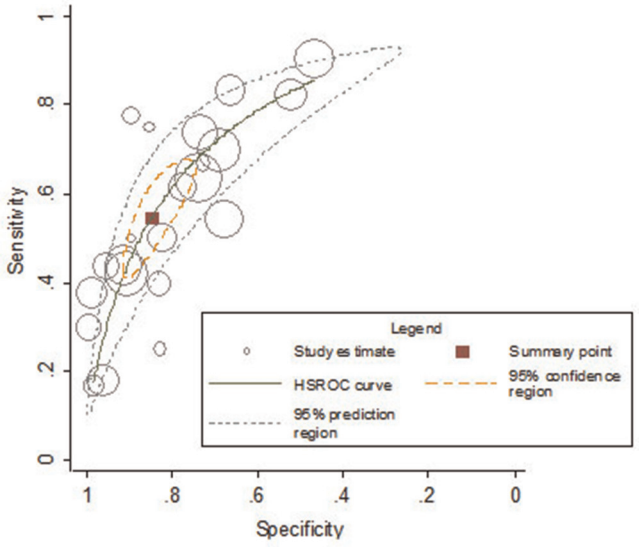
Study	TP	FP	FN	TN	Sample size	Sensitivity (95% CI)	Specificity (95% CI)
Bassan 2011	2	8	1	21	32	0.67 [0.09, 0.99]	0.72 [0.53, 0.87]
Bowen 1996	7	4	2	32	45	0.78 [0.40, 0.97]	0.89 [0.74, 0.97]
Bruggink 2010	2	1	10	37	50	0.17 [0.02, 0.48]	0.97 [0.86, 1.00]
Charkaluk 2011	33	69	19	192	313	0.63 [0.49, 0.76]	0.74 [0.68, 0.79]
Claas 2011	12	14	12	63	101	0.50 [0.29, 0.71]	0.82 [0.71, 0.90]
Cohen 1995	3	2	1	11	17	0.75 [0.19, 0.99]	0.85 [0.55, 0.98]
Fedrizzi 1993	1	1	1	8	11	0.50 [0.01, 0.99]	0.89 [0.52, 1.00]
Gray 1995	7	4	32	83	126	0.18 [0.08, 0.34]	0.95 [0.89, 0.99]
Gray 2006	29	12	18	40	99	0.62 [0.46, 0.75]	0.77 [0.63, 0.87]
Hack 2005	67	67	7	59	200	0.91 [0.81, 0.96]	0.47 [0.38, 0.56]
Kilbride 1990	45	23	9	45	122	0.83 [0.71, 0.92]	0.66 [0.54, 0.77]
Mc Grath 2000	8	1	19	60	88	0.30 [0.14, 0.50]	0.98 [0.91, 1.00]
Munck 2012	9	2	15	98	124	0.38 [0.19, 0.59]	0.98 [0.93, 1.00]
Orchinik 2011	61	31	13	34	139	0.82 [0.72, 0.90]	0.52 [0.40, 0.65]
Potharst 2012	10	4	13	69	96	0.43 [0.23, 0.66]	0.95 [0.87, 0.98]
Reuss 1996	18	14	23	135	190	0.44 [0.28, 0.60]	0.91 [0.85, 0.95]
Roberts 2010	51	30	43	62	186	0.54 [0.44, 0.65]	0.67 [0.57, 0.77]
Skranes 1998	1	3	3	14	21	0.25 [0.01, 0.81]	0.82 [0.57, 0.96]
Smith 2006	34	31	12	84	161	0.74 [0.59, 0.86]	0.73 [0.64, 0.81]
Tommiska 2003	4	11	6	51	72	0.40 [0.12, 0.74]	0.82 [0.70, 0.91]
Veelken 1991	40	14	55	125	234	0.42 [0.32, 0.53]	0.90 [0.84, 0.94]
Wolke 1999	81	43	35	95	254	0.70 [0.61, 0.78]	0.69 [0.60, 0.76]



TP = true-positive; FP = false-positive; FN = false-negative; TN = true-negative.
Extracted data (numbers of TP, FP, FN and TN) and the estimates of sensitivity and specificity with 95% confidence intervals from each study are shown. The forest plots present the variability in the sensitivity and specificity estimates.

Abstract O-048 Figure 1 Coupled forest plot of the sensitivity and specificity of early developemental assessment for school age cognitive deficit

difference between assessments did not explain between-study heterogeneity in results. From the HSROC curve (figure 2), pooled sensitivity (95% CI) was 0.55 (0.44–0.64) and specificity 0.84 (0.77–0.89).



Abstract O-048 Figure 2 Hierarchical summary receiver operator characteristic (HSROC) curve of study estimated sensitivity plotted against specificity

Conclusion Early developmental assessment had poor sensitivity but good specificity at predicting school-age cognitive deficits.

O-049 PARENT'S OVER IDENTIFICATION OF AUSTISM SPECTRUM DISORDER IN EXTREMELY PREMATURE INFANTS AT FOUR YEARS OF AGE

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Background and aims There is increasing interest and speculation about the relationship between prematurity and autism spectrum disorders (ASD). The majority of studies have been retrospective with limited collateral information about the child. This study sought to determine how children designated by their parents' ratings for ASD differed in premature morbidities, cognitive abilities, autism ratings by a psychologist, and executive functioning skills.

Method This prospective longitudinal study of 174 extremely premature infants born ≤30 weeks gestation were followed to age four. The BSID-III was administered at 6, 15 and 24 months with the Infant/Toddler Sensory Profile being completed at 6 months of age. At 4 years, the parents completed the Gilliam Autism Rating Scale (GARS) and the Behavioural Rating Inventory of Executive Function-Preschool Version (BRIEF-P). The psychologists completed the Children's Autism Rating Scale

(CARS) while administering the WPPSI-III. GARS and CARS scores were collapsed into autistic versus non-autistic categories and used to analyse the data.
Results Parent's GARS identified a significantly higher number of children (38%) with ASD than did the examiner's ratings (CARS, 10%). GARS' groups did not differ significantly in NICU length of stay, incidence of sepsis, or severe IVH. At 6, 15, and 24 months the ASD group scored significantly lower on the BSID-III and at four years they had a lower mean IQ (89 v. 105, $p < 0.0001$). Executive functioning for the ASD group on the Brief-P was poor (70.03 v. 47.4, $p < 0.0001$).
Conclusion Parent's perception of NICU morbidities and cognitive delays affect the identification of ASD in extremely preterm infants.

Metabolism

O-050 THE ROLE OF FTO RS17817449 AND RS 9939609 SNP (SINGLE NUCLEOTIDE POLYMORPHISM) IN CHILDREN' OBESITY

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Obesity is a problem with great importance and certain actuality in the field of paediatric pathology because of its increased incidence in children and its complications. Fat mass and obesity associated (FTO) genes are related with weight gain and obesity during childhood, being correlated with body mass index (BMI) and leptin levels.

The aim of our study was to establish the role of the polymorphisms of rs9939609 and rs17817449 FTO genes in determining obesity in a child population from Romania.
Methods We assessed 225 hospitalised children in a tertiary emergency paediatric hospital divided into: control group - 110 patients with normal nutritional status and obese group -105 patients. The two groups underwent the evaluation of *FTO rs17817449 and rs 9939609 SNP*, and the measurement of anthropometric parameters [body mass index (BMI), middle upper arm circumference (MUAC), tricipital skinfold thickness (TST)].
Results We observed that the AA genotype of Rs9939609 SNP gene, is more frequent in obese group [p = 0.01, OR 2.778 95% CI (1.245–6.201)] and the A alleles is heigher in obese group [p = 0, 0148, OR 1,692 95%]. According to the RS17817449 gene mutation no association was found. We observed correlations in AA genotype, between BMI and MUAC (p = 0.0011) and TST, while A allele carriers was associated only with MUAC.
Conclusion Rs9939609 SNP AA genotype and A allele carriers are associated with obesity in children, and are both correlated with BMI and MUAC, while AA genotype is also correlated with TST.

O-051 IMPAIRED ENDOTHELIAL FUNCTION IN ADOLESCENTS WITH TYPE 1 DIABETES OR OVERWEIGHT, MEASURED BY PERIPHERAL ARTERY TONOMETRY

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Background and aims Reactive hyperemia-peripheral artery tonometry (RH–PAT) is a non-invasive method for endothelial function assessment. The goal of this study is to investigate endothelial function as assessed with the RH-PAT in control adolescents and adolescents with type 1 diabetes (T1D) or overweight.
Methods RH-PAT score and baseline pulse amplitude was measured after an overnight fast in 25 control subjects (age 12–20 years), 34 adolescents with T1D and 27 adolescents with overweight or obesity.
Results RH-PAT score was lower in adolescents with T1D compared to healthy controls (1.6 [1.3–2.0] versus 1.9 [1.7–2.4], p = 0.0154). The same trend was seen in adolescents with overweight or obesity (1.5 [1.3–2.0] versus 1.9 [1.7–2.4], p = 0.027). Similarly, the baseline pulse amplitude was higher in the group of patients with T1D (373.0 [208.3–522.0] versus 145.3 [52.3–300.2], p = 0.0033) and in adolescents with overweight or obesity compared to healthy controls (416.3 [360.3–675.7] versus 145.3 [52.3300.2], p < 0.0001). Within the group with overweight, a significantly positive correlation was seen between baseline pulse amplitude and body mass index (BMI) standard deviation score (SDS) ($r = 0.39$ [0.006–0.67], p = 0.047).
Conclusions Endothelial dysfunction, quantified by lower RH-PAT score or higher baseline pulse amplitude, was observed in both adolescents with T1D and with overweight. Early detection of vascular changes in these high-risk patient groups may allow targeted interventions to reduce cardiovascular disease in adulthood.

O-052 25-HYDROXY VIT D, ADIPONECTIN LEVELS AND CARDIOMETABOLIC RISK FACTORS IN A SAMPLE OF OBESE CHILDREN

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Association between vitamin D, adiponectin and obesity is a matter of debate, as they play important role in linking obesity with different cardiometabolic risk factors.
Objectives Evaluation of the association between metabolic risk factors with both adiponectin and vitamin D levels and that between adiponectin and vitamin D among obese Egyptian children.
Subjects and methods This case-control cross sectional study consisted of 65 obese and 30 healthy children, aged 8–11 years. 25-Hydroxy vitamin D [25(OH) D] level, serum adiponectin, total cholesterol (TC), triglycerides (TG), high-density lipoprotein-cholesterol (HDL-C) and low-density lipoprotein-cholesterol (LDL-C) were measured.
Results The mean 25(OH) D levels in the obese and control groups were 29.9 ± 10.3 and 39.7 ± 12.7 ng/mL respectively (?? < 0.001). The mean 25(OH) D and adiponectin levels in the obese were lower than that in the control group (?? < 0.0001). 25(OH)D were inversely correlated with body mass index (BMI), triglyceride, total cholesterol and LDL-cholesterol (LDL-C), While adiponectin level were inversely correlated with