Results Among 283 adolescents 26.5% were overweight, and 73.5% were obese, the mean age was 14.02 ± 1.67 years and 59.4% of the subjects were girls. The SDS-BMI was in median 2.36 ± 0.62 , CDI score was in median 12.72 ± 6.5 , and 47 (16.6%) of the participants were found depressed. Depression frequency was found higher in females than in males ($p=0.047$). No significant difference was found in depression scores between overweight and obese groups. The frequency of hypertension, dyslipidemia and insulin resistance were found similar between depressed and non depressed groups. In depressed group hyperinsulinemia was found more frequent than in non depressed group ($p=0.026$), in logistic regression analysis this relation disappeared.

Conclusion It is obvious that there is a close relationship between depression and obesity, but no association between depression and obesity related cardiometabolic risk factors was found in this study group.

OC13 SYDENHAM'S CHOREA – A RARE CONDITION?

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Sydenham's chorea (SC) is considered a 'rare disease' in Western Europe and not much is known about its incidence in the UK¹. SC is a major criteria for diagnosing Acute Rheumatic fever (ARF). It is known to affect 10–30% of children with ARF. Carditis can affect 50–70% of children with ARF³. Damage to cardiac valves in ARF could be chronic and progressive.

This is an abstract of two patients presenting to A&E with involuntary movements. Both had chorea, carditis and significantly raised ASO titres and were diagnosed to have ARF based on modified Jones criteria.

Case 1 A 9 year old boy attended A&E with 2 weeks history of being increasingly clumsy and fidgety. Had repetitive involuntary movements of arms and multiple facial grimaces. He developed change in speech and was noted to get agitated easily. He had tonsillitis 2–3 weeks before, managed as viral illness by GP. Examination findings were consistent with SC; He was diagnosed with carditis a week later, with echocardiogram evidence of mild mitral and aortic valve regurgitations. His initial ASO titre was 2288, increased to 2626 at 6 weeks and decreased to 1489 11 weeks post presentation. He was commenced on sodium valproate 10 mg/kg twice daily 6 weeks later due to worsening chorea. 6 weeks following treatment, parents reported marked symptomatic improvement.

Case 2 A 9 year old girl presented with six day history of being fidgety, having abnormal movements in arms and poor balance. Child had fever, cough, and hoarse voice 2 months previously and was treated as viral illness. Examination findings were consistent with SC. Her ASO titre was 481. Echocardiography showed mild mitral and tricuspid regurgitation. She was commenced on Haloperidol, symptoms improved completely at 6 months and dose was gradually reduced and stopped.

Both patients had negative throat swab culture and normal cranial MRI. Lactate, Thyroid functions, Very long chain fatty

acids, NMDA receptor antibodies, ANA titres, plasma amino acids, Copper, ceruloplasmin levels, Urine organic and amino acids were all normal. Both patients were started on Penicillin prophylaxis.

Summary We encourage paediatricians to consider SC as a diagnostic possibility in children presenting with involuntary movements and emphasise importance of cardiac evaluation in them. We also believe there is a possible increase in incidence of SC and hence a need to develop consensus guideline regarding medications for SC. We highlight use of either Valproic acid or Haloperidol in SC with good effects.

OC14 OUTCOMES FOR CHILDREN RECEIVING NONINVASIVE VENTILATION AS THE FIRST-LINE MODE OF MECHANICAL VENTILATION AT INTENSIVE CARE ADMISSION ON VINNITSA REGION CHILDREN HOSPITAL: A PROPENSITY SCORE-MATCHED COHORT STUDY

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Objectives To compare outcomes of children receiving noninvasive ventilation with those receiving invasive ventilation as first-line mode of mechanical ventilation following unplanned intensive care admission.

Design Propensity score-matched cohort study analyzing data prospectively collected by the Pediatric Intensive Care Vinnitsa Regional Children Hospital 15 years (2003–2018).

Setting PICU in the Vinnitsa Regional Children Hospital of whom submitted Pediatric Critical Care Minimum Dataset data for the entire study period.

Patients Children consecutively admitted to study PICUs. Planned admissions following surgery, unplanned admissions from other hospitals, those on chronic ventilation, and those who did not receive mechanical ventilation on the day of PICU admission were excluded.

Interventions Use of noninvasive ventilation, rather than invasive ventilation, as the first-line mode of mechanical ventilation.

Measurements and Main Results PICU mortality, length of ventilation, length of PICU stay, and ventilator-free days at day 28. During the study period, there were 11,112 PICU admissions. A total of 1,114 admissions (10, 1%) were eligible for analysis once predefined exclusion criteria were applied: 504 (45.24%) received 'noninvasive ventilation first,' whereas 221 (19.83%) received 'invasive ventilation first'; 24 (2.15%) admissions could not be classified. Admitting PICU site explained 6.5% of the variation in first-line mechanical ventilation group (95% CI, 4.0–18.0%). In propensity score-matched analyses, receiving noninvasive ventilation first was associated with a significant reduction in mortality by 4.2% (95% CI, 1.9–5.6%), length of ventilation by 1.8 days (95% CI, 1.0–3.3), and length of PICU stay by 2.4 days (95% CI, 1.6–3.7), as well as an increase in ventilator-free days at day 28 by 4.1 days (95% CI, 3.1–5.4).

Conclusions Use of noninvasive ventilation as first-line mode of mechanical ventilation in critically ill children admitted to PICU in an unplanned fashion may be associated with significant clinical benefits.