Introduction Saddle pulmonary embolism is a life-threatening, clinically challenging diagnosis. Syncope is an uncommon presentation, which may be misdiagnosed. We report the case of a 17-year-old Caucasian girl with saddle embolism induced syncope.

Case presentation A 17-year-old girl, with no history of disease, was admitted to the emergency department following a 1 day history of two syncopal episodes on a background of left groin pain. She had been taking the COCP for 6 months for the treatment of acne. On admission, she became haemodynamically unstable with a BP 70/40, sinus tachy 150bpm and 83% oxygen saturations on room air. ECG demonstrated sinus tachy, RBBB and V1Q3. Doppler was positive for a left iliofemoral DVT. Urgent CTPA confirmed a massive saddle embolus, multiple right lower zone PE and increased right heart pressure. She was immediately transferred to IR where she had catheter-directed mechanical thrombolysis with 10 mg TPA bolus, 500 IU of heparin followed by an infusion of TPA 0.5 mg/hour. Follow-up pulmonary angiogram demonstrated marked interval improvement with no evidence of residual thrombus. An ECHO was performed showing normal LV systolic function and a negative bubble study. Her lupus screen was negative. She was treated with Heparin according to the SJH protocol and discharged on Apixaban with haematology follow-up.

Discussion The annual incidence of paediatric PE is 0.5/10,000. Diagnosis may be delayed in young individuals, with some reporting a median of 7 days from presentation to diagnosis. Prompt diagnosis is vital to broaden management options and decrease mortality. This is the case of a young woman presenting with a clear indication for thrombolysis. Correct recognition and appropriate use of catheter directed thrombolysis was life-saving. Research indicates that it may be considered in patients with persistent haemodynamic instability, those at risk of death before systemic therapy can be effective and those with high bleeding risks.

Conclusion Pulmonary embolism is an important differential in patients presenting with syncope, with many of these having a large or saddle embolus. Early identification is vital to avoid haemodynamic compromise and to optimise survival.

Further questioning with mother revealed large wet nappies, bad nappy rash and oral thrush going on for last 5 weeks. In addition she lost 800 gm weight in 24–48 hours before arrival.

Physical examination revealed an unwell, emaciated and pale looking baby with signs of severe dehydration, who was catching her breath with each cry. Vitals were: HR 190/min, RR 70/min, BP 103/70(82), SpO2 90%RA, Temp 36.3c.

Systemic Examination was unremarkable apart from moderate increase work of breathing with bilateral equal air entry

Initial impression was late onset neonatal sepsis or gastroenteritis with severe dehydration.

Management Her airway was stabilized on Airvo support (FiO2 50%, flow 6 L/min)

Two IV lines were inserted with full septic screening. She was given 10 ml/kg IV normal saline bolus over 10 mins and covered with Empiric antimicrobial therapy.

Heal prick blood glucose: High, Ketones:

First Venous gas after 10 mins of arrival, confirmed severe DKA: VBG – 3.15 pm

She was resuscitated further on NATIONAL-DKA-PROTOCOL under the expertise of the tertiary care team for five hours until she was transferred safely to PICU for further management.

Subsequent Capillary-Blood-Gases(CBG):
CBG – 5 pm

CBG – 7.30 pm

All other labs including blood culture were normal.

Outcome She stayed in PICU for three days and was transferred back home seven weeks later with no complications. She was started on insulin pump initially for five weeks until genetic results revealed her to be carrying heterogeneous mutations on KCNJ11 gene, confirming Permanent-Neonatal-Diabetes-Mellitus. She was given a trail of sulfonylurea (Glibenclamide) which she tolerated well to obtain an optimal control of her blood sugars.

Conclusion Neonatal Diabetes is a rare condition however one should have a high index of suspicion in infants presenting with unusual weight loss, persistent refractory nappy rash and