

of a 24-year-old primigravida with HoFH who underwent LA and successfully delivered her baby at 35 weeks age of gestation.

CASE

A 24-year-old female diagnosed with HoFH at 7 years old, presented at 7 weeks pregnancy with hyperemesis gravidarum. She previously required regular plasma exchange from the age of 8 but subsequently defaulted treatment at 16 years old. Clinical examination revealed widespread multiple xanthomata over both hands, feet and elbows. Her baseline total cholesterol was 15 mmol/L and LDL-C was 13.2 mmol/L. She was initiated on bi-weekly plasma exchange. However, she developed intradialytic hypotension complicated by fistula failure following a second exchange, which necessitate double filtration plasmapheresis (DFPP), which is more specific for lipid apheresis. The LDL-C levels were reduced by an average of 46% following each treatment. Her pregnancy was complicated by two hospitalisations for suspected Acute Coronary Syndrome. Cardiology referral was made for re-assessment of coronary arteries. Fortunately, echocardiography and dobutamine stress test both showed normal findings. At 35 weeks of gestation, the patient successfully delivered a healthy baby boy weighing 1.6 kg via emergency caesarean section for foetal complication with good Apgar score.

CONCLUSION

This case demonstrated a favourable pregnancy outcome when LA along with good multidisciplinary support was utilized in a pregnant patient with HoFH.

EP_A034

THE USE OF THERAPEUTIC PLASMA EXCHANGE IN A PATIENT WITH RECURRENT SEVERE HYPERTRIGLYCERIDEMIA-INDUCED ACUTE PANCREATITIS

<https://doi.org/10.15605/jafes.038.S2.52>

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INTRODUCTION/BACKGROUND

Severe hypertriglyceridemia (HTG)-induced acute pancreatitis is defined by clinical, laboratory and radiographic evidence of acute pancreatitis with triglyceride (TG) levels of >11.2 mmol/L in the absence of other causative factors. We report a case of therapeutic plasma exchange (TPE) used in recurrent severe HTG-induced acute pancreatitis who failed conventional treatment.

CASE

The patient is a 28-year-old female with poorly controlled Type 2 diabetes mellitus diagnosed 4 years ago with HbA1c range of 10-13% despite on Insulin Actrapid 30 u three times daily, Insulin glargine 36 u daily and Metformin 1g twice daily. Her TG levels remained elevated despite being on daily 145 mg of Fenofibrate, 40 mg of Rosuvastatin, and 4 gm of Omega-3-free fatty acid. Xanthelasma, tuberous or tendon xanthomata were absent. She denied a family history of hypertriglyceridemia. She was non-alcoholic and her thyroid screen was normal. Obesity and poor compliance with lifestyle changes and medications alongside poorly controlled diabetes contributed to severe hypertriglyceridemia. She had recurrent admissions for severe HTG-induced acute pancreatitis within the past 2 years. During each admission, she was given supportive treatment including fasting with bowel rest, analgesia, intravenous hydration, and insulin infusion. She failed to respond to conservative measures and required TPE for 3 of her 6 admissions. Her TG level was >64 mmol/L during these 3 admissions with persistent severe abdominal pain lasting more than 48-72 hours despite fentanyl infusion. Fresh frozen plasma was used as replacement fluid during each TPE session. TG levels dropped by 80-85% after a single TPE with TG levels on discharge decreased to a range of 2.3-5.5 mmol/L.

CONCLUSION

This case highlights the potential utility of TPE during acute pancreatitis by rapidly decreasing TG levels and reducing inflammatory cytokines. However, the TPE effect is transient and the patient requires adequate lipid-lowering treatment to achieve lasting effects.

EP_A035

HEPATOMA-ASSOCIATED NON-ISLET CELL TUMOR HYPOGLYCEMIA: A CASE REPORT

<https://doi.org/10.15605/jafes.038.S2.53>

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INTRODUCTION/BACKGROUND

Non-islet cell tumour hypoglycaemia (NICTH) is a rare condition due to excessive secretion of insulin-like growth factor-2 (IGF-2) or pro-IGF-2. NICTH is commonly associated with hepatocellular carcinomas.

CASE

We reviewed case notes, investigation results, imaging studies and discussed treatment options based on literature review.

A 73-year-old Chinese male with a history of type 2 diabetes mellitus, hypertension and stage IV chronic kidney disease presented to emergency department with syncope attack and capillary blood glucose of 1.9 mmol/L. Initial examination revealed massive hepatomegaly. A 4-phase CT scan of the liver showed multicentric hepatocellular carcinoma. Biochemical investigations revealed hypoinsulinaemic hypoglycaemia, elevated alpha-fetoprotein (AFP) at 135,937 IU/mL, markedly suppressed insulin-like growth factor-1 (IGF-1) and normal IGF-2 level. The IGF-2: IGF-1 ratio was 50:1. He was started on oral prednisolone, titrated up to 25mg twice daily to maintain euglycemia. After discussion with surgical and oncology teams, patient opted for conservative management.

Elevated IGF-2 or pro-IGF-2 exerts insulin mimicking effects leading to hypoglycaemia. The diagnosis of NICTH is based on the IGF-2: IGF-1 ratio, which is higher than 10:1, along with inappropriately suppressed IGF-1. Curative treatment for NICTH is complete resection of the tumour. Glucocorticoids is important to maintain euglycemia on top of nutritional support and glucose infusion. Glucagon has a limited role as adjunct therapy. Diazoxide and octreotide were found ineffective.

CONCLUSION

This is a case of hepatoma-associated NICTH, which was managed with oral prednisolone to maintain euglycemia. Due to advanced disease, we were unable to deliver definitive treatment. High level of suspicion of NICTH is crucial in patients with recurrent hypoglycaemia on a background of malignancy.

EP_A036

RENINOMA: A SURGICALLY CURABLE CAUSE OF HYPERTENSION

<https://doi.org/10.15605/jafes.038.S2.54>

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INTRODUCTION/BACKGROUND

Reninoma is an extremely rare cause of hypertension. It is a tumour of the juxtaglomerular apparatus which secretes renin, leading to secondary hyperaldosteronism, ultimately causing hypertension. This disease is commonly seen in adolescents and young adults and has a female preponderance. Patients with reninoma mostly present with hypokalaemia although they can also be normokalaemic. Most reninomas are benign and surgical resection can render the patient normotensive. Here we report a case of reninoma in a young female who presented with hypertension and palpitations.

CASE

We describe a 23-year-old female who was referred for evaluation of hypertension in the young. She was found to have a BP ranging between 130-180 mmHg (systolic) and 85-120 mmHg (diastolic). She was diagnosed with hypertension and started on oral doxazosin. She complained of paroxysms of sweating with palpitations. On examination, she was a moderately built female with a body mass index of 20.4kg/m². Her pulse rate was 100 beats per minute and her BP was 153/100 mmHg.

Her renin levels were elevated at 518 mU/L (NV: 4.4- 46.1 mU/L) with elevated aldosterone at 998 pmol/L (NV: 61.2- 997.8 pmol/L). Computed tomography of abdomen and pelvis revealed the presence of a well encapsulated heterogeneously enhancing mass on the upper pole of the right kidney measuring 2.7 x 3.0 x 3.3 cm. A biopsy of the lesion was suggestive of a reninoma. The patient underwent a nephron-sparing surgery. Histopathological examination revealed an encapsulated lesion that stained positive for CD 34, CD 177 and vimentin, confirming the diagnosis. Following surgery, the patient was normotensive and all anti-hypertensive medications were withheld.

CONCLUSION

Reninomas are mostly benign neoplasms that can lead to hypertension and severe end-organ damage. High clinical suspicion is required to diagnose this disease, and nephron-sparing surgery can render the patient normotensive.

EP_A037

A BONY PREDICAMENT: CATCHING THE CULPRIT IN THE CHEST

<https://doi.org/10.15605/jafes.038.S2.55>

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INTRODUCTION/BACKGROUND

We report a case of mediastinal parathyroid adenoma as a rare cause of severe hypercalcemia and bone deformities.

CASE

A 19-year-old male presented with progressively worsening scoliosis and restrictive chest wall deformity over 4 years. He underwent chest wall reconstruction surgery with insertion of a titanium plate. Hypercalcemia was incidentally