A 35-year-old diabetic right-handed lady got admitted in BIRDEM General Hospital with the complaints of altered level of consciousness for 12 days which was gradual onset associated with confusion, drowsiness, behavioral changes, difficulty in swallowing and vomiting. It was not associated with fever, headache, loss of consciousness & convulsion. She gave history of vomiting for 15 days which was projectile, containing undigested food materials. It was not mixed with blood or bile. On examination, she was ill looking, nasogastric tube in situ disoriented, apathetic, decreased responsiveness to external stimuli, GCS 8/15, generalized hypertonia, exaggerated deep tendon reflexes including bilateral extensor plantar responses. Other systemic examination was normal. MRI of brain is available (Fig A, B, C, D)

1. What are findings on MRI of brain?
2. What is the most likely diagnosis?
3. What is the probable cause?
4. Name two differential diagnoses

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Question No. 01
A 70-year-old man presents to accident and emergency with a 1-day history of a painful rash across his trunk. He has a medical history of hypertension and hypercholesterolaemia. On examination, there is a well-demarcated blistering rash on the right side of his trunk. What is the most appropriate treatment?
A. Oral acyclovir
B. High dose intravenous acyclovir
C. Topical steroids
D. Paracetamol
E. Amitryptiline

Question No. 02
A 60-year-old man presents with abdominal pain and a cupful of haematemesis. On examination he is noted to have ascites, hepatomegaly and a very enlarged spleen extending to the right iliac fossa. His initial blood tests reveal a leukoerythroblastic picture with a haemoglobin of 8.0 gm/dl, white cell count (WCC) of 3100/mm$^3$ and platelets of 120000/mm$^3$. A diagnosis of myelofibrosis is made. What is most likely to be seen on the peripheral blood smear?
A. Schistocytes
B. Sickle cells
C. Spherocytes
D. Dacrocytes
E. Target cells

Question No. 03
A 56-year-old man, diagnosed with psoriasis three years ago, presents to your clinic with pruritus. His symptoms are not improving despite being prescribed conventional therapy. On examination, you note the presence of erythematous scaly plaques on the extensor surfaces of the knee and elbows. There is no evidence of flexural involvement. The most appropriate treatment is:
A. Topical retinoid therapy
B. Topical tar preparations
C. Topical steroid preparations
D. Topical vitamin D analogue preparations
E. Antibiotics

Question No. 04
A 30-year-old man presents to his GP with a 1-week history of painful, swollen knees and a painful right heel. Further history reveals that he has been experiencing burning pains while urinating for the past 2 weeks and that his eyes have become red and itchy. What is the most likely diagnosis?
A. Septic arthritis
B. Gout
C. Ankylosing spondylitis
D. Enteropathic arthritis
E. Reactive arthritis

Question No. 05
A 28-year-old woman has noticed a change in her appearance, most notably her clothes do not fit properly and are especially tight around the waist. Her face appears flushed and more rounded than usual, despite exercising regularly and eating healthily her weight has steadily increased over the last 3 weeks. On visiting her GP, she notices her blood pressure has increased since her last visit and she has bruises on her arm. She is especially worried about a brain tumour. The most appropriate investigation would be:
A. Low-dose dexamethasone test
B. High-dose dexamethasone test
C. Urinary catecholamines
D. Computed tomography (CT) scan
E. Urinary free cortisol measurement