Remembering Normal pressure hydrocephalus

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Abstract

Case Presentation
A 65-year-old morbidly obese man was referred to neurosurgeon after general practitioner(GP), geriatric and psychiatric consults. He presented with forgetfulness, personality changes, bradyphrenia, depression and mood changes consistent with dementia. He also experienced ataxia, bradykinesia, urinary urgency, frequency and incontinence. The patient's gait and cognitive deterioration started two years prior and progressively declined. The onset of urinary incontinence was one year ago and was consistent with detrusor overactivity.

Investigations and Consults
GP

Routine blood test	Normal
Thyroid function test	
Haematinic screen	

Psychiatrist

Abulia
Mild cognitive impairment
Suicidal ideations
Depression

Geriatrician

Mini Mental State Examination	20/30 Recall 0/3
CT cervical spine	Calcification of transverse ligament
Ct urogram	Bilateral renal cysts
MRI spine	Mild spinal stenosis
CT Brain	Generalized atrophy Ventricular enlargement MIcrovascular ischaemic disease
MRI brain	Possible normal pressure hydrocephalus(NPH)

Neurosurgeon

Symptoms and investigations consistent with NPH
Lumbar puncture(LP) not possible due to obesity
Would benefit from venticuloperitoneal(VP) shunt

Diagnosis
Initially the patient was misdiagnosed with vascular dementia, Alzheimer's disease, frontotemporal dementia and depression. Due to progressive deterioration of symptoms and typical imaging findings he was finally diagnosed with idiopathic NPH after a geriatrician consultation, 2 years after symptoms onset.

Discussion

NPH has an unclear mechanism of cerebral ventricles expansion and distortion of fibres of corona radiata. NPH has worldwide distribution where 50% are idiopathic. Prevalence is 0.5% in over 65 years of age and occurs equally in both sexes. Incidence is 5.5 per 100,000 population per year. NPH is thought to be higher than perceived due to misdiagnosis.

Biography

Hakim Ghani graduated from Medical University of Warsaw in 2014. He underwent the UK foundation programme in Malta. He is currently completing the Basic Specialist Training(BST) in internal medicine at Mayo University Hospital(MUH). He has completed the MRCPI examination in Internal Medicine and is currently involved in audits and research.

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