

Case report

An interesting case of normal Pressure Hydrocephalus presenting with Psychotic Symptoms

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Abstract:

Normal pressure hydrocephalus is an important cause of reversible dementia presenting with a triad of dementia, urinary incontinence and gait disturbance. Psychiatric manifestations usually develop later after the triad. Here we present a case of normal pressure hydrocephalus presenting with prominent psychotic symptoms like auditory hallucinations and delusion of persecution without the characteristic triad. By presenting this case report we try to emphasize the possibility of organic causes in late onset psychosis.

Keywords: Normal pressure hydrocephalus, Psychosis, Dilated ventricles

Introduction

Normal pressure hydrocephalus is a disorder Initially it was considered to be idiopathic ^[1] at present, common usage includes any form of chronic, communicating hydrocephalus ^{[2],[3]}, and even a few non communicating forms such as aqueductal stenosis^[4]. It is one of the main causes for reversible dementia. This 'normal pressure ' is a misnomer because the pressure remains slightly higher but usually within the reference range. The classical triad of cognitive impairment / dementia, urinary incontinence and gait disturbance are the main clinical features which are suggestive of normal pressure hydrocephalus. Psychiatric symptoms usually develop later after the triad. Here we present a case of normal pressure hydrocephalus presenting with prominent psychiatric manifestations without the classical triad of symptoms.

Case report

A 65 year old married male educated till tenth grade working as a farmer from a rural background is

brought to the psychiatry outpatient department by his brother with history of undue fearfulness and talking to self for a period of four months.

Patient was functioning well four months back when the relatives started to notice changes in his behavior. These changes were gradual in onset and progressive. He was found to be fearful for reason which only he believed. He felt that someone had done black magic against him and that he and his family were doomed for life. He felt that these forces were trying to kill him. These beliefs were not shared by his relatives and friends, but his beliefs remained firm despite them trying to convince him that they were his imagination. His wife had found that he would talk to himself as if he was replying to someone when nobody was around him. He would say that he was hearing voices of several people scolding and threatening him. These voices were continuous clear life like coming from outside environment. He had stopped going for work, preferred to stay indoors. His personal care, activities

of daily living was affected. Biological functions like sleep, appetite and sexual functions had decreased.

There was no history of head injury, loss of consciousness, ENT bleed, seizures, fever with chills or rigors, nausea, vomiting, headache, urinary or fecal incontinence.

There were no similar episodes in the past with an inconclusive personal and no psychiatric family history. On general examination patient was thin emaciated with signs of mild dehydration. Cardiological, respiratory and gastro intestinal systems were normal on examination. Detailed neurological examination with mental status examination was done which revealed auditory hallucinations, delusion of persecution and some cognitive impairment in concentration and fluency. No focal neurological deficits were found.

He was investigated to find any organic cause for the psychotic symptoms. A magnetic resonance imaging of his brain revealed ventriculomegaly with an Evans ratio of more than 0.3, cerebrospinal fluid flow voids and corpus callosal thinning, findings which were suggestive of normal pressure hydrocephalus. Scales such as mini mental status examination and brief psychiatric rating scale were applied. His mini mental status rating scale was inconclusive of dementia and brief psychiatric rating scale gave a score of 42. He was treated symptomatically with antipsychotics and benzodiazepines. A ventriculo peritoneal shunt was performed by the neurosurgeon as advised. Doses were titrated and reviewed periodically. After a month's time his psychotic symptoms had decreased with considerable improvement. Brief psychiatric rating scale had come down to 16.

Discussion

Adams et al^[5] in his paper about normal pressure hydrocephalus had described both affective and psychotic symptoms. Normal pressure hydrocephalus usually presents with the classical triad of symptoms namely dementia, urinary incontinence and gait disturbance. Psychiatric symptoms usually develop later in life in patients with normal pressure hydrocephalus. Psychiatric manifestations also include Othello syndrome which has also been documented.^[6]

The development of psychiatric symptoms was attributed to the development of ventricular enlargement similar to the enlargement seen in Schizophrenia. VK Chopra et al.^[7] describes a case of normal pressure hydrocephalus treated with electroconvulsive therapies and trifluoperazine with considerable improvement of symptoms. Surgery is involved with risks mostly because of old age^[8] but weighing the risk benefit ratio based on the quality of life the decision for performing a ventriculo peritoneal shunt was taken. The current case stresses on the presentation of normal pressure hydrocephalus with prominent psychiatric symptoms without the classical triad. This throws light into the various manifestations of neurological conditions and the importance of ruling out any organic pathology in patients presenting with late onset psychiatric symptoms without any relevant personal or family history.

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