

**CASE REPORT****“Head Heaviness” – A Purview of Possible Diagnoses**

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**Abstract**

**A 61 year old Indian man presented with clinical depression after a long-standing of “head heaviness”. Looking through the literatures, there is scant information on the subjective complaint of “a heavy head” despite it being a very common encounter at many primary care clinics. We feel that this is an unusual presentation of the symptom as it was very dramatic, to the extent that the patient was overly preoccupied with his head heaviness and subsequently became depressed. Here we undertake to present the case of a man who became clinically depressed due to his “heavy head”.**

**Keywords: Headache, Depression, Encephalomalacia, Heaviness**

**Case Study**

Mr. A, a 61 year old Indian man had been involved in a motor vehicle accident five years ago with a resultant head injury. He suffered loss of consciousness which lasted for two weeks and had retrograde amnesia following the accident. Days after regaining consciousness, he complained of persistent “head heaviness” with pain at both the temporal regions. He described the heaviness as if the weight of a 32-inch television on his head. He, however, was not able to give any reason for the discomfort.

He subsequently developed clinical depression as he could not withstand the continuous head heaviness. Persistent low mood, loss of interest, being withdrawn, problems falling asleep and feeling worthless characterized his depression. However, there was neither loss of appetite and weight nor any psychotic symptom. He

was then started on antidepressants. Three years into his illness, he gave up his antidepressant medications, as neither the symptoms of his head heaviness nor the depression remitted.

Feeling hopeless that this sensation would ever go away, he ingested acid in an attempt to take his own life. But he was rescued and admitted into the medical ward of our hospital. He had since been on total parenteral nutrition as he was unable to swallow any food or even a tablet. A psychiatric assessment while he was still in the hospital revealed that the patient and his only child were estranged for several years prior to the accident. He felt sad about this estrangement but denied any relationship between his current problem and the estrangement.

Physical examination showed no neurological deficit. Mental state

examination (MSE) revealed a depressed man who was well oriented to time, place and person. Long term memory was intact, as well as his immediate registration. However his 5-minute memory and attention and concentration spans were grossly impaired. He was unable to recall even a single object. Throughout the interview the patient complained about his head being too heavy and he was extremely distressed about it. Computerized tomography (CT) of his brain showed a right fronto-parietal lesion consistent with encephalomalacia (*Figure 1*), and a left corona radiata infarct. The full blood count, renal function test and liver function test were all normal. The haemoglobin was 12.4 g/dl, white blood count was 5,200 u/L and platelet was 275,000 u/L. The surgeons diagnosed him with an oesophageal stricture due to the acid corrosion and he was given an appointment for oesophageal resection to release the stricture in order for him to swallow. Neurologically, however, his “head heaviness” remained unresolved.

Meanwhile, Mr. A was initiated on Mirtazapine tablets 15 mg nocte for his depression but he showed only partial response with slight improvement in his sleep. Options of other antidepressants were limited as the patient was unable to swallow. A trial of 0.5 mg/kg of Ketamine mixed with normal saline, administered over one hour as an infusion and repeated after a week, also produced poor results. Finally cognitive behavioural therapy (CBT) was employed as an adjunct to Mirtazapine. Surprisingly, CBT managed to produce some improvement as the patient was able to speak about his estrangement and not as preoccupied about his head heaviness as before. Mr. A was able to deduce that being admitted to the hospital made his son visit him more frequently than had he been at home. His psychiatric diagnosis was

discussed and reviewed by the team. We came to a conclusion that Mr. A was having a conversion disorder. Currently, Mr. A’s “head heaviness” is much better, and he is still under our regular follow-up to investigate him further.

## Discussion

Encephalomalacia has been linked to symptoms such as loss of function including somnolence, blindness, ataxia, head pressing, circling and terminal coma<sup>1</sup>. However to date there is no report of encephalomalacia presenting as head heaviness. Symptoms of encephalomalacia are also not well described. There are only a handful of past research and literature focusing on encephalomalacia and psychological symptoms. This is because research in psychiatry generally excludes patients with “organic” brain disorders. Radiological evidence of encephalomalacia is present in many stroke patients but the subjective complain of head heaviness does not accompany it.

Occasionally we come across patients whose symptoms are not explainable by our understanding of neuroanatomy. In these cases a diagnosis of conversion disorder may be considered after having excluded all possible organic causes. Conversion disorder is a psychiatric disorder characterized by physical symptoms, not explainable by any general medical condition, and in which psychological factors are thought to play a role. Identifying any emotional stress experienced by the patient before the onset of symptoms is useful in making the diagnosis. In this instance the patient’s estrangement from his son maybe the cause for the symptoms. Conversion disorder is an *unconscious defense* against stress. Patients never consciously fake symptoms. Symptoms of

conversion disorder are atypical and may refer to single or multiple body systems or functions. They are pseudo-neurological in nature. This means that they resemble neurological symptoms but are not explainable by the basis of neuroanatomy. Typically, patients with conversion disorder are young females who are from lower socioeconomic status or rural areas, with little or no education background, and often experience difficulty in expressing their emotional needs<sup>2-4</sup>. However some cases have reported on older patients, similar to the case of our patient<sup>5,6</sup>. Sometimes patients unconsciously mimic symptoms of disease of another person. Investigation revealed a frontal lobe involvement on CT scan of his head. In conversion disorder it has been hypothesized that there is lower activation in the supplementary motor areas (SMA) located in the frontal lobes<sup>7</sup>. Conversion disorder was previously thought to be completely psychogenic in origin. However, in recent years researches have shown organic findings in patients with conversion disorder, in comparison to normal subjects.

Also, there was a gross discrepancy between the mental state examination and his actual functional capacity during the psychiatric interview and during psychotherapy. This goes in favor of a conversion disorder. The therapist was able to interact with him quite well especially when discussing about his “head heaviness” despite his poor performance in cognitive testing. A point against the diagnosis of conversion disorder was the absence of “la belle indifference” where the patient did not show concern of his own physical problem.

Post-concussion syndrome (PCS) is one of the psychiatric differential diagnoses to consider. 15% of these cases have symptoms that persist beyond 3 months after a trauma.

The dilemma of psychological versus organic aetiologies of PCS, is being replaced by a multifactorial perspective which integrates biological, social, cognitive, affective and behavioural factors<sup>8</sup>. An important theme of this research is on people who believe that illness or injury will influence how they interpret their bodily sensations, and the attributed symptoms can determine how they will react to them<sup>9</sup>. Whittaker and colleagues found that certain illness perceptions in their cohort successfully predicted 80% of those developing PCS. Their findings were based on previous research by Mittenberg et al<sup>10</sup> which had shown that patients who attributed benign emotional, physiological and cognitive changes to their head injury, because they were not aware of the normal prevalence of these characteristics in the general population, were more likely to develop PCS. In this case the patient had depressive and cognitive changes which are often found in PCS however “head heaviness” is not a feature of PCS.

Myopathy of neck muscles was excluded as neck flexion and truncal strength power test were both normal. Spinal cord injury without radiological abnormality (SCIWORA) would have presented with limb weakness but not “head heaviness”<sup>11</sup>. Generally SCIWORA occurs in children less than 16 years of age and elderly people more than 60 years old. It is said to be under-reported in adults and may have accounted for “head heaviness” not being reported<sup>12</sup>.

Meningitis and encephalitis with or without raised intracranial pressure are other causes of “head heaviness” but are discounted as patients do not present in as dramatic a manner as our patient did, nor would it last for 5 years without dire neurological consequences. Nasal congestion would not have shown up on CT scan however may

proceed to sinusitis. A post alcoholic binge, beginning of a transient ischemic attack, mild vertigo due to any cause and sleep apnoea are other causes of “head heaviness”.

Glaucoma was also ruled out as no eye symptoms such as cloudy or haloed vision, nausea or vomiting, photophobia, blepharospasm or strabismus were present.

**Figure 1. Encephalomalacia in the right fronto-temporal area (arrow)**



Lastly we would like to add that a literal translation of “*thallai bharam*” which means “heavy head” in Tamil may have led to this description, as this is Mr. A’s native language. This would be especially important in countries where there are Indian immigrants. In a country like Malaysia, where we live in a multi-racial community, it is prudent to consider the impact of language on symptom description. This is akin to another similar phrase such as “*masuk angin*” among the Malays and Chinese which literally means “wind has entered the body” but is medically explained as muscle tension.

### Conclusion

Based on this case report, we learn that physically unexplained “head heaviness” which does not respond to analgesics and anti-depressants should not be left alone. It

may be one of the somatoform disorders where cognitive behavioural therapy plays a major role in the treatment.

Consent was obtained from this patient for this case write up.

### References

1. Bugnone A, Hartker F, Shapiro M, Pineless H, Velez G. Acute and chronic brain infarcts on MR imaging in a 20-year-old woman with acute posterior multifocal placoid pigment epitheliopathy. *American journal of neuroradiology*. 2006;27(1):67-9.
2. Guz H, Doganay Z, Ozkan A, Colak E, Tomac AI, Sarisoy G. Conversion and somatization disorders:: Dissociative symptoms and other

- characteristics. *Journal of psychosomatic research*. 2004;56(3):287-91.
3. Letonoff EJ, Williams TRK, Sidhu KS. Hysterical paralysis: a report of three cases and a review of the literature. *Spine*. 2002;27(20):E441.
  4. Lazare A. Conversion symptoms. *New England Journal of Medicine*. 1981;305(13):745-8.
  5. Cybulska EM. Globus hystericus--a somatic symptom of depression? The role of electroconvulsive therapy and antidepressants. *Psychosomatic medicine*. 1997;59(1):67-9.
  6. WEDDINGTON Jr WW. Conversion reaction in an 82-year-old man. *The Journal of Nervous and Mental Disease*. 1979;167(6):368.
  7. Voon V, Brezing C, Gallea C, Hallett M. Aberrant supplementary motor complex and limbic activity during motor preparation in motor conversion disorder. *Movement Disorders*. 2011.
  8. LI Wood R. Understanding the 'miserable minority': A diathesis-stress paradigm for post-concussional syndrome. *Brain Injury*. 2004;18(11):1135-53.
  9. Whittaker R, Kemp S, House A. Illness perceptions and outcome in mild head injury: a longitudinal study. *Journal of Neurology, Neurosurgery & Psychiatry*. 2007;78(6):644-6.
  10. Mittenberg W, DiGiulio DV, Perrin S, Bass AE. Symptoms following mild head injury: expectation as aetiology. *Journal of Neurology, Neurosurgery & Psychiatry*. 1992;55(3):200-4.
  11. Kasimatis GB, Panagiotopoulos E, Megas P, Matzaroglou C, Gliatis J, Tyllianakis M, et al. The adult spinal cord injury without radiographic abnormalities syndrome: magnetic resonance imaging and clinical findings in adults with spinal cord injuries having normal radiographs and computed tomography studies. *The Journal of Trauma*. 2008;65(1):86.
  12. Tewari MK, Gifti DS, Singh P, Khosla VK, Mathuriya SN, Gupta SK, et al. Diagnosis and prognostication of adult spinal cord injury without radiographic abnormality using magnetic resonance imaging: analysis of 40 patients. *Surgical neurology*. 2005;63(3):204-9.

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