A choroid plexus papilloma manifesting as anorexia nervosa in an adult

The lesson of the month by Singh et al, detailing the 18-month diagnostic journey of a patient with a choroid plexus papilloma, is a stark example of diagnostic error attributable in part to the cognitive bias known as ‘psych-out error’.

Most diagnostic errors are made in ‘intuitive thinking’ mode, while using mental shortcuts (‘heuristics’ or ‘biases’). There are currently over 100 cognitive biases described. Some common cognitive biases involved in medical diagnostic error include:

- anchoring – the tendency to focus on salient features in your patient’s initial presentation too early in the diagnostic process and failure to reconsider the diagnosis in light of later information
- confirmation bias – the tendency to look for evidence to confirm your diagnosis rather than for evidence to disprove it
- diagnosis momentum – once diagnostic labels are attached to patients, they tend to remain and gather increasing momentum with time, without any additional supporting evidence
- fundamental attribution error – the tendency to be judgemental and blame patients for their illnesses based on their personal circumstances
- psych-out error – patients with mental illness often have comorbid medical conditions overlooked; making a misdiagnosis of mental illness rather than a causative underlying physical condition is a variant of this bias.

The patient in this case seems to have been a victim of a perfect storm of anchoring, fundamental attribution error, confirmation bias, diagnosis momentum and psych-out error – all of which conspired to delay her eventual diagnosis of choroid plexus papilloma. The exhortation to exclude organic causes before comorbid medical conditions are overlooked; making a misdiagnosis of mental illness rather than a causative underlying physical condition is a variant of this bias.

The patient in this case seems to have been a victim of a perfect storm of anchoring, fundamental attribution error, confirmation bias, diagnosis momentum and psych-out error – all of which conspired to delay her eventual diagnosis of choroid plexus papilloma. The exhortation to exclude organic causes prior to attributing symptoms to mental illness is an example of a cognitive de-biasing strategy against psych-out error, and other similar strategies exist for the numerous biases involved in diagnostic error.

Conflicts of interest

The author has no conflicts of interest to declare.

SHIVA SREENIVASAN
Consultant in acute medicine, South West Acute Hospital, Enniskillen, Northern Ireland, UK

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