Tics, TikTok and COVID-19

Rob J Forsyth

In grappling with COVID-19, the world has been relearning many lessons—from second waves to the importance of mask wearing—from that neglected tutor, the great 1918 (‘Spanish’) influenza pandemic. For neurologists, 1918 produced an additional unforgettable lesson in postinfectious neuropsychiatry as an outbreak of encephalitis lethargica left cohorts of institutionalised adults living with severe Parkinsonism into the 1970s and immortalised in Oliver Sacks’ Awakenings.

Mindful of this story, systematic efforts to capture and report neuropsychiatric sequelae of COVID-19 were put in place at the outset of the pandemic. Although in fact the evidence is somewhat circumstantial. In the 21st century, we have the hotly debated, proposed phenomenon of paediatric autoimmune neuropsychiatric syndrome (PANS) whose advocates insist on an autoimmune aetiology for many phenomena (particularly obsessive–compulsive disorder and tics) more conventionally viewed as diagnoses of exclusion. Such debates have a lineage back to the well-attested mass outbreaks of ‘dancing mania’ of the 14th–17th centuries, where religious fervour was probably more important than postinfectious processes.

Against this background, Heyman et al1 highlight their experience of a marked increase in referrals of young people with severe acute exacerbations of tics during the COVID-19 pandemic, an experience I and anecdotally others share. They strongly favour a functional aetiology for these cases, driven by the introcontroversiable mental health toll on young people of the pandemic and lockdown. If we are to avoid the arid mind versus body, psychology versus cytokines debates that have bedevilled this and related fields for so long, proponents on each side need to generate truly falsifiable hypotheses amenable to experimental testing. In this the ‘functional’ proponents have arguably had more success recently. For too long, functional diagnoses were seen as diagnoses of exclusion, a last resort when no ‘medical’ explanation could be found. Such negative framings are rightly criticised by advocates of inflammatory processes as potential sinks of medical ignorance. Equally importantly negative framings do not generate testable hypotheses. Increasingly, however, we see functional diagnosis as a process of positive recognition of characteristic features (such as the role of attention in maintenance of signs).4 In contrast, the PANS hypothesis is now arguably more lacking in truly falsifiable, testable, experimental predictions precisely because it in turn has been framed negatively as a diagnosis of exclusion.

A key question for Heyman and others to address is ‘why, specifically, tics?’ The rather complex picture of post-COVID-19 neurology contrasts with the homogeneity of the encephalitis lethargica phenomenon. One might suggest that phenomenological homogeneity supports a biological process (consider Sydenham chorea) but as with the dancing mania phenomenon of the Middle Ages, ‘social contagion’ provides another mechanism, and the role of social media highlighted by Heyman et al suggests some directly testable hypotheses that could be the focus of further research in this latest twist in the long story of inflammation and the mind.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Commissioned; internally peer reviewed.

This article is made freely available for use in accordance with BMJ’s website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may use, download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

© Author(s) (or their employer(s)) 2021. No commercial re-use. See rights and permissions. Published by BMJ.

To cite Forsyth RJ. Arch Dis Child May 2021 Vol 106 No 5

See rights and permissions. Published by BMJ.

In this the ‘functional’ proponents have arguably had more success recently. For too long, functional diagnoses were seen as diagnoses of exclusion, a last resort when no ‘medical’ explanation could be found. Such negative framings are rightly criticised by advocates of inflammatory processes as potential sinks of medical ignorance. Equally importantly negative framings do not generate testable hypotheses. Increasingly, however, we see functional diagnosis as a process of positive recognition of characteristic features (such as the role of attention in maintenance of signs).4 In contrast, the PANS hypothesis is now arguably more lacking in truly falsifiable, testable, experimental predictions precisely because it in turn has been framed negatively as a diagnosis of exclusion.

A key question for Heyman and others to address is ‘why, specifically, tics?’ The rather complex picture of post-COVID-19 neurology contrasts with the homogeneity of the encephalitis lethargica phenomenon. One might suggest that phenomenological homogeneity supports a biological process (consider Sydenham chorea) but as with the dancing mania phenomenon of the Middle Ages, ‘social contagion’ provides another mechanism, and the role of social media highlighted by Heyman et al suggests some directly testable hypotheses that could be the focus of further research in this latest twist in the long story of inflammation and the mind.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not required.

Provenance and peer review Commissioned; internally peer reviewed.

This article is made freely available for use in accordance with BMJ’s website terms and conditions for the duration of the covid-19 pandemic or until otherwise determined by BMJ. You may use, download and print the article for any lawful, non-commercial purpose (including text and data mining) provided that all copyright notices and trade marks are retained.

© Author(s) (or their employer(s)) 2021. No commercial re-use. See rights and permissions. Published by BMJ.

To cite Forsyth RJ. Arch Dis Child May 2021 Vol 106 No 5

See rights and permissions. Published by BMJ.

REFERENCES


