



Letter to the Editor

Confirm the patho-anatomical leak before diagnosing a SARS-CoV-2 swab test related CSF fistula

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Dear Editor,

With interest, we read the article by Robles *et al.* about a 69 years-old female with recurrent rhinorrhea, who was diagnosed with a traumatic cerebrospinal fluid (CSF) fistula due to a penetrating trauma triggered by a suspected forced nasal swab test for SARS-CoV-2.^[2] The diagnosis CSF fistula was based only on recurrent clear fluid rhinorrhea as imaging methods failed to confirm the leak at any stage of the disease.^[2] Recovery could only be achieved after 15 months by insertion of a lumbar catheter for 7 days since all other methods (acetazolamide and antibiotics) failed to be effective.^[2] The study is appealing but raises concerns that require further discussion.

We disagree with the diagnosis CSF fistula in the index patient for several reasons. First, the fistula was never confirmed pathoanatomically. Second, the patient did not, except for rhinorrhea, develop classical symptoms of a CSF fistula, such as positional headache with improvement in supine position and worsening when standing or sitting, nuchal rigidity, photophobia, or diplopia.^[2] A patient with a CSF fistula during 15 months should normally develop symptomatic meningitis. Third, CSF examinations never showed pleocytosis.^[2] Fourth, there was no epistaxis after the presumed trauma, which is usually the case immediately after a traumatic CSF fistula. The initial clinical manifestation was “rhinorrhea of clear fluid from the left nostril.”^[2] No epistaxis was reported. In this regard, it should be reported whether the swab test was also passed through the left nostril.

There are several reasons why the presumed CSF fistula has not been confirmed by any of the examinations carried out. First, no dye has been injected into the CSF and its eventual leaking through the nose confirmed by endoscopy. Second, the imaging techniques applied may be inappropriate. No magnetic resonance imaging or computed tomography (CT) of the bony skull or the skull base had been carried out. Performing only CT cisternography, paranasal sinus CT, and head CT is insufficient.

Missing are the detailed results of the CSF investigation. We should be informed about the CSF cell count, protein, glucose, and lactate levels, and if oligoclonal bands were positive or not.

There is no mentioning if recurrent rhinorrhea was due to a chronic SARS-CoV-2 infection. Persistence of the virus with mild symptoms has been previously reported.^[1] We should know if pharyngeal swab tests were carried out to assess the SARS-CoV-2 status of the patient.

Overall, the study carries obvious limitations that require re-evaluation and discussion. Clarifying these weaknesses would strengthen the conclusions and could improve the study.

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Diagnosing a CSF fistula solely on the clinical presentation may carry the risk of misdiagnosing and mistreating the condition.

Ethics approval

Only secondary data were used.

Availability of data

All data are available from the corresponding author.

Author contributions

Josef Finsterer: Design, literature search, discussion, first draft, critical comments, and final approval.

Declaration of patient consent

Patient's consent not required as there are no patients in this study.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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