Reviewer's report

Title: Subarachnoid small vein occlusion due to inflammatory fibrosis—a possible mechanism for cerebellar infarction in cryptococcal meningoencephalitis: a case report

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Reviewer: Ondrej Dolezal

Reviewer's report:

I read with interest "Cryptococcal meningoencephalitis causing venous infarction: a case report " by Dr Shimoda et al. I found case report very interesting and valuable for clinical practice. Cryptococcal infection in patient without known immunosuppression is always surprising especially when presenting as vascular incident. However we can argue that this gentleman was far from healthy as there was a history of chronic infection and liver failure. Authors should mention that in abstract. In the body of text they should mention social situation, drug history etc. which can be relevant.

Only problem I have with this case report originates from the emphasis authors put on venous origin of "stroke-like" presentation in this patient. They mentioned normal angiogram but it seems that formal venogram or at least venous phase of angiogram was not studied/done.

I still would accept it; however in figure's legend authors mentioned "proliferation of endothelial cells was observed inside the inner cavity of small arteries (arrows in D, F), which implies the slow progression of arterial occlusion". Is this not a direct contradiction to title putting emphasis on venous occlusion? Was not this responsible for "slow stroke" presentation?

Granuloma was found in biopsy sample, why authors suspected venous ischaemia as primary cause for lesion. Authors admit that fungi, granuloma swelling and fibrous tissue could lead to secondary venous compression and mention that "oedema was caused rather by infection rather then infarction".

These are all slightly contradictory statements. If I am not mistaken authors work with assumption that pathogenesis occurred in this order (many of the below naturally occurred almost simultaneously): haematogenic infection spread - granuloma/fibrosis -venous occlusion - venous stroke - oedema (oedema of both granuloma and ischemia).

I would rather vote for: haematogenic infection spread - granuloma/fibrosis - endothelial proliferation/small arteries occlusion - ischemia- oedema (oedema of both granuloma and ischemia)- secondary venous occlusion.
This conclusion seems more logical and backed by pathological findings. I would be happier if case report is changed according to my comments but if there is anything I misunderstood please let me know.

Is fibroid tissue (collagen) greenish/bluish in Masson’s staining? Please add to legend, will be useful for clinicians without proper histology knowledge.

**Are the methods appropriate and well described?**
If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**
If not, please specify which controls are required in your comments to the authors.

Yes

**Are the conclusions drawn adequately supported by the data shown?**
If not, please explain in your comments to the authors.

No

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I am able to assess the statistics

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