

Peer Review File

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First External Peer Review

Reviewer A

Line 97: It is not entirely clear how the diagnosis of non-infectious or infectious scleritis was made. Were the additional tests performed in all patients or in a selection? Please clarify. Were patients with anterior scleral inflammation as well, which could be diagnosed as panscleritis, also included in this cohort?

How was infectious scleritis diagnosed?

- ➔ Thank you for your comment. The diagnostic criteria for posterior scleritis were added to the inclusion criteria as follows:
- ➔ (page 7, 1st paragraph, line 46-53) “The diagnosis of posterior scleritis was made when patients with suspected past medico-surgical history and clinical features showed the following characteristic abnormalities on imaging or blood tests: the T sign observed on B-scan ultrasound; increased choroidal thickness and serous retinal detachment observed on optical coherence tomography (OCT); optic disc swelling and vascular leakage observed on fluorescein angiogram; increased choroidal thickness observed on either CT or MRI; serology test results suggesting rheumatologic or infectious disease; culture results of samples taken from the lesion in cases of suspected infectious scleritis, etc.)”
- ➔ Moreover, additional tests were received by all patients as described in page 7, line 59-page 8, line 68.
- ➔ (page 7, 1st paragraph, line 59 – page 8, 1st paragraph, line 68) “Dilated funduscopic examination and OCT examination were performed. B-scan ultrasonography test confirmed whether the “T” sign was present or whether the scleral thickness had increased. Fluorescein angiography (FA) was also performed to confirm any abnormal findings suggestive of posterior scleritis, such as optic disc leakage or vascular leakage. All patients were tested for complete blood count, erythrocyte sedimentation rate, and C-reactive protein levels; additional serology tests were performed for assessing rheumatologic or infectious diseases, if needed. Patients with suspected infectious posterior scleritis were tested for bacterial and fungal culture for the suspected organism. For differential diagnosis, imaging tests such as CT and MRI, were

performed, if necessary.”

- ➔ Infectious scleritis was diagnosed by culturing samples taken from lesions from patients with a suspected past medico-surgical history and lesions containing pus, which was described as follows:
- ➔ (page 7, 1st paragraph, line 46-53) The diagnosis of posterior scleritis was made when patients with suspected past medico-surgical history and clinical features showed the following characteristic abnormalities on imaging or blood tests: the T sign observed on B-scan ultrasound; increased choroidal thickness and serous retinal detachment observed on optical coherence tomography (OCT); optic disc swelling and vascular leakage observed on fluorescein angiogram; increased choroidal thickness observed on either CT or MRI; serology test results suggesting rheumatologic or infectious disease; culture results of samples taken from the lesion in cases of suspected infectious scleritis, etc.)

Line 131: At which moment the blood cultures were taken? Were also scleral cultures performed? Later in the text scleral nodule cultures were measured. Were also blood cultures taken?

- ➔ Thank you for your comment. Actually, scleral culture was performed, and it was confirmed that it was incorrectly entered as blood culture. Two patients with infectious scleritis underwent blood culture, but the culture result was negative.
- ➔ We apologize for the typo, and have been corrected as follows:

(page 8, 2nd paragraph, line 79-80) “Culturing in pus-filled nodules Blood culture revealed super-infection with both *P. aeruginosa* and coagulase-negative staphylococci in those two patients (Table 1).”

Line 372: Figure 1D: please indicate the scleral thickness on the ultrasound B-scan.

- ➔ Thank you for your comment. The scleral thickness was added to the B-scan image.

Line 388: Figure 2A: scleral thinning indicated by the arrow is not clearly visible, a different gaze position should be encountered to show this.

- ➔ Thank you for your comment. Figure 2A has been modified by adding an enlarged picture to show the scleral thinning a little better, instead of not having an image taken from a different angle.

Line 391: Figure 2D: Fluorescence angiogram is not a clearly visible, please exclude this figure or include one with better quality.

- ➔ Thank you for your comment. This photograph was removed due to severe

inflammation of the posterior segment and the low resolution of the wide-angle fluorescence angiogram.

Line 393: Also enhanced signal intensity of peri-ocular tissue?

- ➔ Thank you for your comment. As you pointed out, the enhanced signal intensity of the peri-ocular tissue was also observed and corrected as follows.
- ➔ (Figure 2) **D**. (left) T1-weighted fat suppression magnetic resonance imaging revealed high signal intensity of the scleral wall **and adjacent peri-ocular tissue**, and high signal intensity in front of the lateral rectus muscle;

Reviewer B

In my opinion, it is an interesting manuscript with clinically relevant data. It should be accepted after minor revision.

- ➔ Thank you for your review.

Reviewer C

I recommend accept.

- ➔ Thank you for your review.

Second External Peer Review

Reviewer Comments:

This manuscript is much improved and of interest of readers, however, there is only one item that needs further clarification. The definition of posterior scleritis is a little too broad at the moment. Please further specify, or leave out the findings that are nonspecific for scleritis, such as serous retinal detachment and optic disc swelling. Also, a serology test on itself is not a diagnostic test for scleritis.

“The diagnosis of posterior scleritis was made when patients with suspected past medico-surgical history and clinical features showed the following characteristic abnormalities on imaging or blood tests: the T sign observed on B-scan ultrasound; increased choroidal thickness and serous retinal detachment observed on optical coherence tomography (OCT); optic disc swelling and vascular leakage observed on fluorescein angiogram; increased choroidal thickness observed on either CT or MRI; serology test results suggesting rheumatologic or infectious disease; culture results of samples taken from the lesion in cases of suspected infectious scleritis, etc.)”

→ Thank you for your comment. I agree that the diagnostic criteria for posterior scleritis are rather broad, and unnecessary items have been removed for clarity.

(page 8, 1st paragraph, line 48-55) “The diagnosis of posterior scleritis was made when patients with suspected past medico-surgical history and clinical features showed the following characteristic abnormalities on imaging or blood tests: the T sign observed on B-scan ultrasound; increased choroidal thickness ~~and serous retinal detachment~~ observed on optical coherence tomography (OCT); ~~optic disc swelling and~~ vascular leakage observed on fluorescein angiogram; increased choroidal thickness observed on either CT or MRI; ~~serology test results suggesting rheumatologic or infectious disease~~; culture results of samples taken from the lesion in cases of suspected infectious scleritis, etc.”