

## BBIBP-CorV/SARS-COV-2-vaccine-inactivated-Sinovac-Biotech

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## Eye disorders: 7 case reports

In a retrospective case series, conducted from February 2021 to July 2021 at a tertiary referral center in China, 7 patients including 2 men and 5 female patients aged 10–57 years were described, who developed reactivation of iritis, Vogt-Koyanagi-Harada (VKH) disease, VKH-like uveitis, acute idiopathic maculopathy (AIM), multifocal choroiditis or episcleritis following vaccination with BBIBP-CorV or SARS-COV-2-vaccine-inactivated-Sinovac-Biotech for immunisation against COVID-19 [dosages and routes not stated].

Case 1 (a 33-year-old man): The man presented with blurred vision and redness in the left eye 3 days after receiving the first injection of BBIBP-CorV [Sinopharm COVID-19 vaccine]. His medical history was significant for ankylosing spondylitis, which was well-controlled with etanercept. He also had iritis previously. On presentation, visual acuity was found to be 0.4 in the left eye with an intraocular pressure of 13mm Hg. The slit lamp examination showed a conjunctiva congestion, fine keratic precipitate and anterior chamber flare and iris adhesion. The blood test showed positive human leucocyte antigen-B27 and an elevated ESR. Additionally, the inflammatory analysis revealed elevated interleukin-6 and interferon- $\gamma$ . Based on the clinical presentation and laboratory findings, reactivation of iritis secondary to the BBIBP-CorV vaccination was considered. Therefore, the man was treated with unspecified steroid. As a result, complete remission was achieved in a 2-week follow-up. Thereafter, he did not receive his second dose of COVID-19 vaccination.

Case 2 (a 57-year-old woman): The woman presented with complaints of bilateral blurred vision and redness 10 days after receiving the first injection of BBIBP-CorV [Sinopharm COVID-19 vaccine]. Thereafter, she received the second dose of SARS-COV-2-vaccine-inactivated-Sinovac-Biotech [Sinovac COVID-19 vaccine]. However, she developed severe visual loss in the right eye 2 days after receiving the second dose of SARS-COV-2-vaccine-inactivated-Sinovac-Biotech. On examination, the visual acuity was 0.25 in the left eye and was hand motion in the right eye with an intraocular pressures of 11.3mm Hg and 11.2mm Hg in the left eye and right eye, respectively. An anterior segment examination showed a conjunctiva congestion, gray fine keratic precipitate and anterior chamber cell in both eyes. The dilated fundus examination revealed multiple serous retinal detachment, which was consistent with intraretinal and subretinal fluid shown on optical coherence tomography (OCT). Based on the clinical presentation and laboratory findings, a diagnosis of VKH secondary to the BBIBP-CorV and SARS-COV-2-vaccine-inactivated-Sinovac-Biotech vaccinations was made. Therefore, the woman was treated with unspecified steroid. As a result, complete remission was achieved.

Case 3 (a 21-year-old man): The man presented with bilateral redness, blurred vision, fatigue and headache one day after receiving the first injection of SARS-COV-2-vaccine-inactivated-Sinovac-Biotech [Sinovac COVID-19 vaccine]. Based on the clinical presentation, VKH-like uveitis secondary to the SARS-COV-2-vaccine-inactivated-Sinovac-Biotech vaccination was considered. Therefore, the man was treated with unspecified steroids. As a result, complete remission was achieved. Thereafter, he did not receive his second dose of COVID-19 vaccination.

Case 4 (a 30-year-old woman): The woman presented with blurred vision in the left eye 3 days after receiving the first injection of SARS-COV-2-vaccine-inactivated-Sinovac-Biotech [Sinovac COVID-19 vaccine]. Based on the clinical presentation, multifocal choroiditis secondary to the SARS-COV-2-vaccine-inactivated-Sinovac-Biotech vaccination was considered. Therefore, the woman was treated with triamcinolone [triamcinolone acetonide]. As a result, complete remission was achieved. After one month, she received her second dose of SARS-COV-2-vaccine-inactivated-Sinovac-Biotech; however, no recurrence of multifocal choroiditis symptoms were noted.

Case 5 (a 36-year-old woman): The woman presented with sudden painless vision loss in her left eye one week after receiving the first injection of SARS-COV-2-vaccine-inactivated-Sinovac-Biotech [Sinovac COVID-19 vaccine]. She had also experienced mild flu-like symptoms 3 days after the vaccination. On presentation, she had an elevated ESR, while infection was ruled out by systemic work-up. The visual acuity was found to be 1.0 and 0.2 in the left and right eye, respectively with normal intraocular pressure. The funduscopy of the right eye revealed a sub-retinal foveal yellowish-white lesion corresponding to the disruption of the ellipsoid layer and retinal pigment epithelium as shown in the OCT. The fluorescein angiography revealed foveal hyperfluorescent from staining in the late phase. The changes in the retina were consistent with AIM, which was attributed to the SARS-COV-2-vaccine-inactivated-Sinovac-Biotech vaccination. Therefore, the woman was treated with unspecified steroids. As a result, complete remission was achieved at a 4-week follow-up. Thereafter, she did not receive her second dose of COVID-19 vaccination.

Case 6 (a 28-year-old woman): The woman developed VKH-like uveitis following vaccination with BBIBP-CorV. The woman presented with flu-like symptoms and blurred vision 3 days after receiving the first injection of BBIBP-CorV [Sinopharm COVID-19 vaccine]. Based on the clinical presentation, VKH-like uveitis secondary to the BBIBP-CorV vaccination was considered. Therefore, the woman was treated with unspecified steroids. As a result, complete remission was achieved.

Case 7 (a 10-year-old girl): The girl, who had intermediate uveitis, had been receiving treatment with adalimumab and methotrexate. Thereafter, she presented with redness in her one eye 7 days after receiving the first injection of SARS-COV-2-vaccine-inactivated-Sinovac-Biotech [Sinovac COVID-19 vaccine]. Based on the clinical presentation, episcleritis secondary to the SARS-COV-2-vaccine-inactivated-Sinovac-Biotech vaccination was considered. Therefore, the girl was treated with unspecified steroids. As a result, complete remission was achieved.