

Dexamethasone/prednisolone

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Cryptococcus laurentii endogenous endophthalmitis and Klebsiella infection following off label use: case report

A man in his mid 50s [exact age not stated] developed Klebsiella infection and *Cryptococcus laurentii* endogenous endophthalmitis during off-label treatment with dexamethasone and prednisolone [duration of treatment to reactions onsets not stated; not all outcomes stated].

The man presented with a history of 6 weeks of progressive blurred vision in his left eye. He had diabetes and affected by COVID-19 pneumonia. He was admitted due to COVID-19 pneumonia. He received off-label therapy with IV dexamethasone 4mg for 3 days followed by oral prednisolone 20mg (with 10 mg weekly tapers) for 3 weeks. Five weeks after the discharge, he was noted to have a decreased vision. Later, he was noted to have pyelonephritis and septicaemia. Urine culture showed Klebsiella infection.

The man was treated with levofloxacin. He was found to have underlying proliferative diabetic retinopathy (PDR) with vitreous haemorrhage in the left eye and severe non-proliferative diabetic retinopathy (NPDR) in the right eye. Then, he was referred for further management. Ultrasound B scan of the left eye showed heterogeneity of vitreous, posterior vitreous detachment and dome-shaped subretinal mass with high internal reflectivity in the region of optic nerve head shadow. After investigation, he was diagnosed with left eye endogenous endophthalmitis. He underwent pars plana vitrectomy and vitreous biopsy. He received vancomycin and imipenem. Systemic antibiotic therapy with levofloxacin was continued. Eventually, an improvement was noted. However, he presented after 1 week with a worsening of the symptoms and their vision worsened with the perception of light. The follow-up ultrasound B scan of the left eye at 1 week post surgery revealed increase in echoes in the vitreous cavity and the dome-shaped mass at the optic nerve head had increased diameter with high internal reflectivity. The smear showed few inflammatory cells, no bacteria or fungus identified on the smear. However, the culture grew fungal colonies. The organism was identified as *C. laurentii*. Based on these findings, he was diagnosed with *Cryptococcus laurentii* endogenous endophthalmitis. He received voriconazole at an interval of 72 hours. He also treated with fluconazole. The medication was continued for 9 weeks and stopped. At 4 months of follow-up, following the withdrawal of medication the infection did not show any recurrence. Further, it was confirmed that Klebsiella infection and *Cryptococcus laurentii* endogenous endophthalmitis were associated with dexamethasone and prednisolone.

Deepa MJ, et al. *Cryptococcus laurentii* endogenous endophthalmitis post COVID-19 infection. *BMJ Case Reports* 15: No. 5, 11 May 2022. Available from: URL: <http://doi.org/10.1136/bcr-2021-246637> 803671945