Ibrutinib

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Uveitis and systemic inflammatory complications: 4 case reports

In a case report, 4 patients (2 men and 2 women) aged 60–69 years were described, who developed uveitis or systemic inflammatory complications during chemotherapy with ibrutinib [*times to reactions onsets not stated*].

Case 1: The 60-year-old woman, who had been diagnosed with chronic lymphocytic leukaemia 9 years previously, had been receiving oral ibrutinib 420mg daily for 1 years and was stable. She presented to an ophthalmologist due to a bilateral increase in floaters. Following investigations, she was diagnosed with ibrutinib-related uveitis. She continued to receive regular dose of ibrutinib, and she was treated with steroids (prednisolone acetate). After 8 weeks, the anterior chambers were quiet bilaterally. She still suffered vitreous inflammation bilaterally, and steroids were therefore continued. Five months after the initiation of steroids, intraocular pressures elevated, and she was then weaned off the steroids. After 2 weeks, floaters re-developed in the right eye. BCVA had decreased, with improvement of intraocular pressures. Eye exam showed quiet anterior chambers, 1+ vitreous cells, inferior snowballs and cystoid macular oedema. She had a left-sided epiretinal membrane. Steroids were started bilaterally, along with brimonidine/timolol. She continued to remain stable on ibrutinib with steroids. Ten months after the first presentation, she had no further inflammation, and the cystoid macular oedema was noted to have resolved. Steroids were discontinued, and her vision was stable.

Case 2: The 63-year-old man, who had been diagnosed with chronic lymphocytic leukaemia, was stable under treatment with oral ibrutinib 420mg daily for 2 years. He presented to an ophthalmologist due to a floater in the left eye. Following examinations, a diagnosis of ibrutinib-related uveitis was made. Ibrutinib was continued, and he started receiving topical steroids (prednisolone acetate). After 2 weeks, he started receiving oral steroids (prednisolone) for a presumed systemic inflammatory complications of ibrutinib and discontinued topical steroids. A month after initiation of steroids, the uveitis had fully resolved, with a stable visual acuity. However, he persistently experienced nerve head swelling. Eight months after the initiation of steroids, BCVA had improved bilaterally, and the optic nerve swelling had reduced bilaterally. He did not have ongoing uveitis, and he was weaned off oral steroids. He continued to experience uveitis relapses, with cystoid macular oedema after steroids were weaned while he had been receiving ibrutinib. The relapses resolved on treatment with short doses of steroids; however, recurred on weaning.

Case 3: The 69-year-old man, who had been diagnosed with chronic lymphocytic leukaemia, had been receiving oral ibrutinib 420mg a day for 18 months. He had multiple co-morbidities. He presented with 2 weeks of bilateral paraesthesia in the hands and feet, which was followed by a 1-week history of right sided facial weakness, bilateral facial paraesthesia and loss of the right inferior visual field and floaters. He had himself stopped taking ibrutinib 1 week before presentation. Following multiple investigations, ibrutinib-related uveitis was diagnosed. Therefore, he underwent a vitreous aspirate and received foscarnet. Also, he started receiving prednisolone acetate. Investigations were unremarkable. On examination after 3 days, the right facial droop was noted to have resolved. At 2 weeks, the anterior chambers were quiet and the vitreous cells and haze had resolved. He had some persistent inferior snowballs and had developed pallor of the right optic disc superiorly. Prednisolone acetate was weaned. A trial of methylprednisolone at a month after presentation was planned; however, due to COVID-19 pandemic, he was subsequently followed up by telephone. He reported that there was no improvement and the symptoms were stable. Ibrutinib was started, without worsening of the symptoms.

Case 4: The 66-year-old woman, who had chronic lymphocytic leukaemia, had been receiving oral ibrutinib 420mg a day for the previous 3 years. Medical history also included hypertension, bilateral pseudophakia and breast cancer (radiotherapy and mastectomy in 2005). She presented with bilateral floaters for 3 weeks. Following examinations, she was diagnosed with ibrutinib-related uveitis. Ibrutinib was continued, and a right vitreous tap was performed for viral PCR. She received empirical foscarnet, followed by valaciclovir and prednisolone acetate. Since the herpes multiplex PCR was negative, valaciclovir was discontinued. Other tests were unremarkable. She showed signs of resolution with continued steroids, which were then weaned over the following 2 months. The inflammation was quiet, and her vision had improved.

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