

# Visual Disturbances with Clomiphene

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## Summary

Clomiphene is a widely prescribed drug for the treatment of infertility. Visual symptoms that occur as a side effect of this drug are uncommon. Some doctors may neglect to mention this side effect when prescribing clomiphene. Thus these visual disturbances can be very alarming to the patient and may also pose a hazard if the patient is doing activities such as driving or operating machinery. The patient should be told to stop taking clomiphene and ophthalmologic evaluation should be performed. Although visual disturbances generally cease on stopping clomiphene, some women may experience persistent visual disturbances.

**Key Words:** Visual disturbances, Side effects of clomiphene

## Introduction

Clomiphene is a widely used drug in the treatment of infertility. Patients are usually warned of the side effects such as breast tenderness, bloating, hot flashes and migraine by the gynaecologist. However, visual disturbances secondary to this drug may only be mentioned in passing or not at all, as these side effects are uncommon. Therefore when it occurs, the patient can be alarmed and distressed by this unexpected side effect. A case of visual disturbances occurring with clomiphene is described here.

## Case Report

A 41-year-old Chinese woman presented to an ophthalmologist with unusual and distressing visual symptoms of seeing what she described as

"waves in the peripheral vision". This occurred over the previous two mornings after she got up from bed and turned on the bathroom light. These episodes lasted a few minutes, after which her vision returned to normal. She also experienced "flashes" off and on during the day.

She volunteered the information that she was trying to conceive and had been on clomiphene for the last five days. For the current cycle the dosage had been increased to 150mg a day. She was previously on 50mg per day for the last cycle.

Ocular examination revealed that the vision in her right eye was 6/18, correctable to 6/6 with glasses. Left eye vision was 6/6. The extra ocular movements were normal. There was no relative afferent pupillary defect. No visual field defects were detected. The anterior and posterior segment findings were unremarkable in both eyes.

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## CASE REPORT

Given the above ocular findings, it was concluded that the visual disturbances that she described were due to clomiphene. She was advised to stop taking clomiphene and her gynaecologist was informed. (The patient had not been informed prior to this that clomiphene could cause visual disturbances). A month after stopping clomiphene, the visual disturbances ceased.

### Discussion

Clomiphene is a synthetic drug used in the treatment of infertility. Some women do not secrete enough Luteinizing hormone (LH) and Follicle stimulating hormone (FSH) at the right time during the menstrual cycle and as a result, they do not ovulate. For these women, the first drug doctors often prescribe is clomiphene citrate. This synthetic drug stimulates the hypothalamus to release more Gonadotropin releasing hormone (GnRH), which then prompts the pituitary to release more LH and FSH, and thus increasing the stimulation of the ovary to begin to produce a mature egg.

As with any other drug, the patient should be warned of potential side effects. Adverse events reported during a clinical trial by Merrell Dow Pharmaceuticals Inc. involving 8029 anovulatory women include ovarian enlargement 13.6%, vasomotor flushes 10.4%, abdominal-pelvic discomfort, distention, bloating 5.5%, nausea and vomiting 2.2%, breast discomfort 2.1%, visual symptoms 1.5%, headache 1.3%, and abnormal uterine bleeding 1.3% (package insert for Clomid).

As visual symptoms are uncommon, the doctor prescribing clomiphene may neglect to mention this side effect. However if visual side effects occur, it can be very alarming to the patient who has not been forewarned of this. Visual symptoms include blurring of vision, lights, floaters, photophobia, diplopia, scotoma and phosphenes. The aetiology of these is not well understood. In this patient, a retinal rather than cortical

localization seems likely as her visual disturbances were precipitated by going from a dark room to light room. This seems more characteristic of a retinal process. Pharmacologic studies in animals have shown high levels of clomiphene in ocular tissues with particularly high concentrations in the inner nuclear layers of the retina as demonstrated by autoradiographs<sup>1</sup>.

These visual symptoms increase in incidence with increasing total dose or therapy duration and generally disappear within a few days or weeks after clomiphene is discontinued (package insert for Clomid). In the case reported, she experienced the visual symptoms after the dosage of Clomiphene was increased abruptly from 50mg to 150 mg.

Visual symptoms may render activities such as driving a car or operating machinery more hazardous than usual, particularly under conditions of variable lighting. The patient should be evaluated by an ophthalmologist to ensure there is no ocular pathology. Some reported adverse visual disorders that have been reported associated with the use of clomiphene include abnormal accommodation, eye pain, macular edema, optic neuritis, photopsia, posterior vitreous detachment, retinal hemorrhage, retinal thrombosis, retinal vascular spasm and temporary loss of vision (package insert for Clomid).

Patients therefore should be warned of visual symptoms that can occur with clomiphene. They should discontinue this drug and seek complete ophthalmologic evaluation. Ophthalmologists should also be alert to the fact that clomiphene can cause unusual visual disturbances. The patient may not always give the information that she was on clomiphene. She may have stopped using the drug and therefore may not suspect that the visual disturbances are linked to this drug. Therefore the patient should be asked specifically about the use of infertility drugs.

In the past visual disturbances with clomiphene were thought to be reversible, however persistent

visual disturbances have been described<sup>2</sup>. The clinician prescribing clomiphene should therefore not take the side effect of visual disturbances

lightly, thinking that these symptoms will be reversible and persisting with prescribing clomiphene.

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## References

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