Blindness by ECT-induced posterior reversible encephalopathy syndrome resulting in transient cortical blindness

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ABSTRACT

Electroconvulsive treatment (ECT) for mental disorders is considered to be safe and effective when administered according to standard protocols for appropriate indications. However, ECT has its complications, which include blindness. Blindness by ECT-induced posterior reversible encephalopathy syndrome (EIPRES) resulting in transient cortical blindness (TCB) is one of the possibilities. A 69-year-old woman with underlying schizophrenia and major depression mood not improved with medical therapy, presented with immediate bilateral eye loss of vision post ECT. Visual acuity (VA) of bilateral eye showed no perception of light with negative menace reflex. Relative afferent pupillary defect was negative. Ocular examination revealed mild cataract in anterior segment while fundus and optic disc appeared normal. Full blood count, renal profile, and serum electrolytes were within normal range. Other central nervous system examinations were unremarkable. Contrast-enhanced computed tomography of brain and orbit was normal with no intraparenchymal lesion or bleed seen especially in occipital cortex. Reassessment was done on the subsequent day, VA had improved to counting fingers OU. Patient was reviewed at 48-hours post ECT, VA subsequently improved to 6/10 OD, 6/12 OS spontaneously. Magnetic resonance imaging done 1 week post ECT revealed frontal lobe atrophy and small vessel disease, with no intracranial bleed (ICB). Post ECT-TCB is a rare complication that resolves spontaneously without intervention. The overall safety of ECT is supported by many studies. Nevertheless, patients with EIPRES must be thoroughly examined with imaging as ECT may cause a life-threatening ICB that may need further surgical intervention.