

ELECTRO CONVULSIVE THERAPY IN PRE-PUBERTAL CATATONIA: A CASE STUDY

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ABSTRACT

Depression in prepubertal age group is a relatively rare condition. The presence of life threatening catatonic features call for aggressive treatment. Electro convulsive therapy (ECT) has been described to be effective in these circumstances; however, doubts have been raised about its safety profile. This present case study illustrates the efficacy and safety of ECT in prepubertal catatonia.

Key words: Prepubertal catatonia, ECT, depression, efficacy, safety.

Recognition of depression in prepubertal children is a relatively recent phenomenon. Cizadlo and Wheaton (1995) have reported that life-threatening catatonia, often associated with a major affective disorder, is rare in young people. According to them, the occurrence of severe depression with frank catatonia in an 8-year old was unprecedented in the English-language literature prior to their report.

Existing literature suggests that sedative drugs (amobarbital, diazepam or lorazepam) are of great benefit in treating catatonia, and when these agents fail, recourse to ECT has a good prognosis (Fink, 2001). In general, less is known about the use of ECT in prepubertal children. Although less, the existing few reports on ECT have been generally favorable (Clardy&Rumpf , 1954; Gurevitz & Helme,1954; Carr et al., 1983; Black et al.,1985;Guttmacher &Cretella , 1988 ; Powell et al., 1988;Cizadlo & Wheaton , 1995). In view of dearth of Indian literature addressing this issue, role of ECT in a case of prepubertal catatonia is presented in this report.

CASE REPORT

S.K., an eleven year-old boy, belonging to low socioeconomic status, having no contributory past and family histories, educated up to primary level, premorbidly well adjusted, presented to our Child Psychiatry Clinic with an illness of three months duration which began after witnessing a street scuffle. To start with, he developed fearfulness but subsequently persistent sadness, crying spells, poor interest in pleasurable activities, and social withdrawal became evident. In the last few days, his activity level decreased amounting to remaining in one position for long hours and he also started refusing food. With the diagnosis of severe depressive episode with psychotic symptoms (ICD-10, World Health Organisation, 1992) , he was hospitalized.

At admission, he had catatonic features immobility, mutism, posturing, rigidity, withdrawal and autonomic instability and had score of 16 on Bush-Francis Catatonia Rating Scale (BCRS) (Bush et al., 1996). His catatonia was subsequently

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rated on alternate days. For initial three days, he received injection lorazepam 2mg thrice daily and following improvement in his symptoms as evidenced by the reduction in catatonia score to nine, oral lorazepam 2mg thrice daily was started. In addition, he was also commenced on Sertraline 25mg/day, thioridazine 100mg/day and lithium 1200 mg/day; the later agent was added in view of risk of bipolarity noted in this subset of population (Pataki,2000). His baseline investigations and thyroid functions were within normal limits and IQ assessment revealed average intelligence. Due to lack of further reduction in catatonia score,lorazepam was tapered and stopped. Following this, his condition deteriorated and he became agitated and began avoiding food intake. At this point of time, after taking informed consent of guardians, ECT and injection trifluoperazine 1-mg twice daily was started and other medications were discontinued.

He was administered three doses of bilateral ECTs (Pulse width: 1-msec, duration:0.7-sec, frequency:50-HZ, Current:500-mA, energy:3J) spanning over a period of 1week. The seizure duration ranged from 35-50 sec; the longest duration being in the last seizure. His catatonia rapidly improved as evidenced by decline in BCRS scores from nine to zero. His Mini Mental Status Examination score two days after the course of ECT was 25. Following the resolution of catatonia, ECT was discontinued and for his persisting depressive symptoms, imipramine 25mg/day,lithium 1200-mg/day and risperidone 2-mg/day were started. Following the resolution of his depression at the end of one month of therapy, he was discharged with lithium 900-mg/day and risperidone 2-mg/day.

DISCUSSION

Although young age is not listed as a contraindication to ECT, the report of American Psychiatric Association (APA) task force on ECT cautioned that ECT in children "should be reserved for instances where other viable treatments have not been effective or cannot be safely administered"

(APA Task Force,1990). Because of the poor response of catatonia to lorazepam, sertraline and thioridazine and persistent refusal to feed, we considered ECT in our case. Notably, catatonia of our patient resolved completely with a course of three ECTs. Since target symptoms were mainly catatonia, further ECTs were not administered. An earlier report (Black et al., 1985) suggested the success with ECT in treating profound retardation, muteness and refusal to eat in an 11-year old boy. In another report, depressive stupor of a 13-year old boy has been successfully treated with ECT (Powell et al., 1988). A similar finding has been noted in another report too (Bertagnoli & Borchardt, 1990). The largest series in recent times reviewing the use of ECT in children and adolescents found it to be effective in those adolescents in whom unipolar depression with or without psychosis and bipolar disorder had been diagnosed (Schneekloth et al., 1993).

Seizure thresholds are lower in childhood than in adults and elderly (Fink,2001) and use of adult-level energies may elicit prolonged seizures in this population (Guttmacher & Cretella, 1988). Using the lowest available energies, however, may minimize such events (Fink,2001). Concerns have been raised that ECT may interfere with the brain's growth and maturation and inhibit normal development. But psychosis itself can be detrimental if left unabated. It has been suggested (Wyatt,1991) that prolonged or repeated psychosis might leave biochemical alterations,gross pathological microscopic scars, and changes in neuronal connections. This compels one to believe that rapid resolution of acute psychotic episodes is imperative for better long term outcome. In this regard, a prospective study exploring the long-term consequences of ECT in children and young adolescents may be necessary.

Thus to conclude, prepubertal catatonia though a rare condition, is definitely amenable to treatment and ECT seems to be viable option. Until untoward consequences are documented by properly designed studies, it may not be worth to deny the benefits of ECT.

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