Explosive Aggression in Youth: Medical Management Without the Use of Antipsychotic Medication

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Background

Multiple studies have demonstrated the successful management of explosive aggression in youth when using antipsychotic medication, however, these medications have significant side effects and risks (Gerardin, P., Cohen, D., Mazes, P., & Flament, M.F., 2002 ; DeDenn, P.P., & Buitelaar, J., 2006; Pandina, G.J., Aman, A.G., & Findling, R.L., 2006). Several studies have suggested that a less risky medication protocol, using anticonvulsant medication, shows good outcomes in treating explosive youth during residential placement, and may continue to show good outcomes, up to one year post discharge, as long as the outpatient physicians are compliant with the protocol (Fisher, L. & Matthews, D., 2004 ; Wetherill, R., Kroll, G., Fisher, L., & Matthews, D., 2006; Fisher, W., Kroll, G., Matthews, D., & Fisher, L., 2007; Matthews, D., Fisher, W., Ceballos, N., & Fisher, L., 2009). Some studies have suggested that neurophysiological abnormalities (e.g.; event-related potentials) can help to identify which explosive youth are most likely to benefit from anticonvulsant medication (Fisher, W., Matthews, D., Fisher, L., & Ceballos, N., 2008; Matthews, D., Fisher, W., Ceballos, N., & Fisher, L., 2009; Fisher, W., Ceballos, N., Matthews, D., & Fisher, L., 2011).

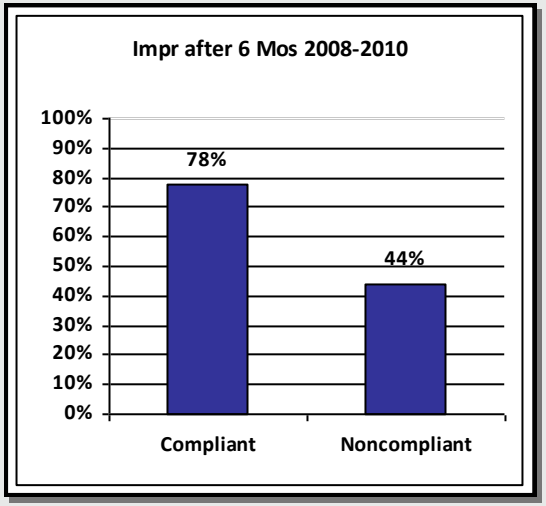
Objective

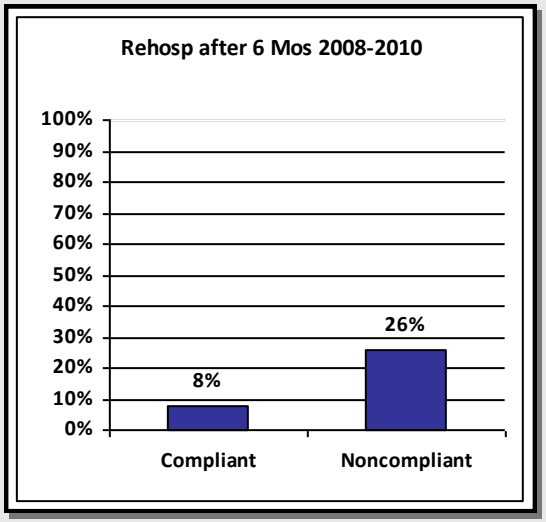
The current study explores the ability to manage explosive juveniles discharged from residential treatment without antipsychotic medications, but instead using a protocol consisting of anticonvulsant and dopaminergic medications.

Methods

Subjects were 91 explosive juveniles (52 male, 39 female; ages 5-17) with diagnoses including Mood Disorder, Bipolar disorder, Attention Deficit Hyperactivity Disorder and Intermittent Explosive Disorder. In each case, the admitting Psychiatrist classified the history of aggression as primarily explosive (e.g., repetitive impulsive temper outbursts with physical assaults) rather than premeditated (e.g., bully behavior, or repetitive assaults committed for a purpose). All subjects were discharged from a residential treatment program after having been stabilized on anticonvulsant and dopaminergic medications (e.g.; oxcarbazepine and amantadine HCl), and after removing any antipsychotic medication. Aftercare physicians were asked to be compliant with the treatment protocol but some were non-compliant and either added or substituted antipsychotic medication.

Outcomes were measured, over a 3 year period, by a mail survey of caregivers at 6 months post-discharge from residential treatment (positive outcome operationally defined as 50% or better reduction in frequency and severity of aggression, compared to pretreatment; re-hospitalization was also monitored in this survey).





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Results

The percent of positive outcomes, and percent with re-hospitalization, were computed separately for those whose aftercare doctors had been fully compliant with the medication protocol and those whose aftercare doctors had been non-compliant (e.g., personal preference for antipsychotics). All the data (N=91) are from 6 months post discharge. For the fully compliant, the percentage of positive outcomes was 78% (50 out of 64). In contrast, for the noncompliant, the percentage of positive outcomes was 44% (12 out of 27). These outcomes were compared in a Chi Square analysis (Chi Square, two-tailed, with Yates, =8.43 $p<.05$; Phi=.33) that showed a significant relationship between positive outcome and compliance. The data for re-hospitalization are also for 6 months post discharge. For the fully compliant, the percentage of those requiring re-hospitalization was 8% (5 out of 64). In contrast, for the non-compliant the percentage of those requiring re-hospitalization was 26% (7 out of 27). Using a Chi Square analysis there was a significant relationship between re-hospitalization rates and compliance (Chi Square, two tailed, with Yates, = 3.975, $P<.05$; Phi=.24).

Conclusion

The data suggest that, without the use of antipsychotic medication, positive outcome (higher rates of improvement and fewer re-hospitalizations) for explosive youth can occur, six months post discharge from residential treatment, if outpatient physicians are compliant with an anticonvulsant protocol.