



### I15 Impulsive Aggression: Nature and Pharmacotherapy

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After attending this presentation, attendees will be able to define impulsive aggression, diagnose impulsive aggression, and make evidence-based decisions in prescribing medication to control impulsive aggression.

This presentation will impact the forensic science community by showing how the ability to define, diagnose, and apply the medication algorithm will assist attendees in gaining improved knowledge and competence in effectively treating impulsive aggression in both forensic and civil patient populations.

Impulsive aggression is defined as, “a “hair-triggered” response to a stimulus which results in a sudden agitated state that lasts a few minutes to several hours (Dodge, 1991), the agitation builds to a crescendo and culminates in an aggressive act. During this state interpersonal communication appears inefficient and recall of events may be poor... Impulsive aggression [IA]... is spontaneous, unplanned, and lacking in self control. Outbursts are explosive and driven more by impulse or erupting affect than by acquisitive or self-promoting goals” (Felthous and Barratt, 2003).

A variety of psychotropic agents representing selective serotonin reuptake inhibitors (SSRIs), anticonvulsants, mood stabilizers, beta blockers, psychostimulants, and antipsychotics have been prescribed for intermittent explosive disorder and IA, either in “pure form” or co-occurring with other psychopathology. The efficacy of anti-impulsive aggression agents is directly related to accurate diagnosis of IA and mental disorder of which impulsive aggression can be secondary (e.g., bipolar disorder, manic). Scientific literature is not consistent in defining and diagnosing IA; therefore, this presentation begins with a description of the nature of IA and an evidence-based explanation for its diagnosis.

Although algorithms for the pharmacotherapy of clinical aggression (e.g., Moeller and Swann, 2007) have been proposed, a medical standard of care for the pharmacotherapy of IA has not gained general acceptance. Based upon a review of the literature, the presenters offer an evidence-based algorithm for treating IA with medication. This algorithm requires accurate diagnosis of IA and co-occurring mental disorder as well as assessment of the severity of IA in terms of intensity and frequency of episodes. Not to be overlooked is a careful history of prior psychotropic medications and their effect on aggressive episodes. Substance abuse and sedative/stimulant seeking behavior can complicate the assessment and treatment of IA.

The suggested sequence in which the medications could be used to treat IA takes into account their efficacy, side effect profile, the ease of administration and the recommended monitoring. With all these in mind, an SSRI such as fluoxetine, sertraline, paroxetine, citalopram, or escitalopram is a reasonable first line medication, particularly if the IA is not severe. There is enough evidence based literature to support their efficacy in these scenarios. They have minimal side effects and are generally well tolerated. If the IA is severe or the SSRI is ineffective, a mood stabilizing anticonvulsant is a prudent selection. Most of the anticonvulsants used in clinical practice have shown to be efficacious, with extensive studies done with carbamazepine, valproic acid, oxcarbazepine, and phenytoin. The drawbacks of anticonvulsants are their side effects and the need for regular blood testing. It is also important to consider the possibility of drug-drug interactions with other medications that the person might be on, before starting them. Another class of drugs which helps control IA are the antipsychotics. Drugs like quetiapine, aripiprazole, olanzapine, and risperidone are used with good clinical effect. They are used for severe IA which is either not controlled by the above two classes of drugs or where side effects have limited their use. It is important to keep the black box warning of sudden cardiac death in mind, which limits their use to particular patient population with IA where the benefits outweigh the risks. Other medications to be discussed will include beta blockers and psychostimulants.

When the IA is secondary to another disorder, in many cases the aggressive behavior subsides with appropriate pharmacotherapy of the primary disorder. This review and algorithm also includes evidence in support of pharmacotherapy of the IA itself, when treatment of the primary disorder fails to control aggression.

Critical to the success of the algorithm and effective pharmacotherapy of the IA in general, is careful monitoring of the IA episodes in the course of the treatment. There will be a discussion about having the patient maintain a diary and also monitoring for these episodes during follow up appointments, by using the Overt Aggression Scale by Yudofski or the Modified Overt Aggression Scale.

#### **Impulsive Aggression, Intermittent Explosive Disorder, Pharmacotherapy of Aggression**