Antisocial personality disorder: Treatment overview

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INTRODUCTION

Antisocial personality disorder (ASPD) is defined as a pattern of socially irresponsible, exploitative, and guiltless behavior. ASPD is a lifelong disorder that typically begins in childhood or early adolescence, is fully manifest by the late 20s or early 30s, and is associated with disturbances in many areas of life [1,2].

Typical behaviors include criminality, failure to sustain consistent employment, exploitation of others for personal gain, and failure to develop stable interpersonal relationships. Other features of ASPD include lacking empathy for others, rarely experiencing remorse, and failing to learn from the negative results of one's experiences [3,4].

This topic describes treatment for ASPD. Other aspects of ASPD are discussed separately. Pharmacotherapy for personality disorders is reviewed separately. (See "Antisocial personality disorder: Epidemiology, clinical manifestations, course, and diagnosis" and "Personality disorders: Overview of pharmacotherapy".)

TREATMENT OF ANTISOCIAL PERSONALITY DISORDER

Individuals with antisocial personality disorder (ASPD) typically present seeking treatment for symptoms related to a comorbid disorder (eg, mood dysregulation, substance use) or due to problematic psychosocial stressors (eg, work, relationship, legal) [5-7]. For individuals willing to engage in treatment, our preference for treatment modality is based on symptom severity, the

presence of aggressive behaviors, and the presence of co-occurring disorders. Our preferred treatment of ASPD is presented in the algorithm (algorithm 1). (See 'ASPD with comorbid disorders' below and 'Mild or moderate ASPD' below and 'Individuals with aggressive behavior' below and 'Severe ASPD (psychopathy)' below.)

ASPD with comorbid disorders — We address comorbid disorders (eg, mood disorders, substance use disorders [SUDs], attention deficit hyperactivity disorder) as a first step in the treatment of individuals with ASPD. We address the comorbid disorders according to their preferred treatment method; however, we avoid treatment with medications that have an increased risk of misuse or dependence (see 'Medications to avoid' below). Limited evidence suggests that patients with personality disorders (including ASPD) treated for comorbid disorders such as depression do not respond as well to treatment as do persons without a personality disorder [8]. In our experience, successful treatment of comorbid disorder may lead to improvement of the symptoms of ASPD or improved response to treatment for ASPD.

Substance use disorders — We treat individuals with ASPD and co-occurring SUD with medical management of withdrawal when indicated. We follow this with inpatient or outpatient psychosocial addiction programs such as Alcoholics Anonymous or Narcotics Anonymous with a goal of abstinence.

While treatment of SUDs can be challenging, benefits may extend to ASPD as well as SUD. In a study of individuals with ASPD and comorbid SUD, individuals who were treated with methadone maintenance were less likely to engage in antisocial or criminal behaviors, had fewer family conflicts and fewer emotional problems than those who continued to engage in substance misuse [9].

There are few studies of treatment of co-occurring SUDs with ASPD. These studies have largely showed similar outcomes between study group and control [10,11].

As examples, in two separate trials of contingency management for SUD co-occurring with ASPD, active treatment with contingency management did not demonstrate a benefit over treatment as usual. (See "Substance use disorders: Training, implementation, and efficacy of treatment with contingency management".)

- In a clinical trial, 40 patients with ASPD and SUD were randomly assigned to receive either a structured contingency management intervention in addition to standard SUD treatment, or to standard SUD treatment alone [10]. Improvement was seen in both groups over 17 weeks of treatment, but no significant differences were seen between groups.

- In another clinical trial, 100 patients with opioid dependence and ASPD were randomly assigned to a structured contingency management intervention plus methadone maintenance or to methadone maintenance alone [11]. No differences were seen between intervention groups in drug abstinence. The group receiving the contingency management had better attendance than subjects receiving methadone maintenance alone.

Management of specific SUDs are described separately.

- (See "Alcohol use disorder: Treatment overview".)
- (See "Risky drinking and alcohol use disorder: Epidemiology, clinical features, adverse consequences, screening, and assessment".)
- (See "Alcohol use disorder: Pharmacologic management".)
- (See "Substance use disorders: Psychosocial management".)
- (See "Opioid use disorder: Treatment overview".)
- (See "Stimulant use disorder: Treatment overview".)

Comorbid borderline personality disorder — Psychotherapy with efficacy in specified disorders, such as borderline personality disorder, appears to remain effective when the disorders co-occur with ASPD:

- In two uncontrolled cohorts of 64 and 65 patients, co-occurring ASPD did not appear to interfere with the efficacy of Systems Training for Emotional Predictability and Problems Solving group therapy for borderline personality disorder [12].

- A clinical trial randomly assigned 40 patients with co-occurring borderline personality disorder and ASPD to receive mentalization-based therapy or structured clinical management [13]. After treatment for 18 months, both groups showed overall symptom improvement, but patients assigned to mentalization-based therapy had greater improvement in anger, hostility, paranoia, and suicidal and self-harm behaviors than those in structured clinical management. (See "Borderline personality disorder: Psychotherapy".)

- In an uncontrolled trial in a correctional setting, 30 males with co-occurring borderline personality disorder and antisocial behavior received 12 months of dialectical behavior therapy and were then followed for one year. Reductions in self-harm, verbal and physical aggression, and criminal reoffending, as well as symptoms of borderline personality disorder were noted [14].

Mild or moderate ASPD — We suggest cognitive-behavioral therapy (CBT) as the initial treatment for individuals with mild or moderate ASPD. While the results of most clinical trials

evaluating CBT for persons with ASPD have not demonstrated clear efficacy, it is possible that CBT may benefit those with milder forms of the disorder and those who possess some insight or have reason to improve (eg, individuals who risk losing a spouse or job due to their behavior) [15]. (See 'Efficacy of CBT' below.)

Focus and goals of CBT — We set guidelines for the patient's involvement in the treatment of individuals with ASPD. These include attendance, active participation, and completion of homework outside of office visits [16]. We do this to enhance engagement in the treatment and patient accountability.

Using CBT, we focus on the patient's beliefs about themselves or others and behaviors that impair social functioning [17]. Our preference is to focus on evaluating situations in which the patient's distorted beliefs and attitudes may have interfered with interpersonal functioning or in achieving goals. Once the patient has gained an understanding of how they have contributed to the problematic situation, we assist them in gradually making changes to their thinking and behavior. For example, cognitive distortions underlying the patient's thinking and behavior can be challenged such as the belief that they can do no wrong, or that feelings justify actions.

Throughout the treatment, we aim to be aware of our feelings and remain vigilant to prevent them from disrupting the therapy (eg, through countertransference) [18]. Individuals with ASPD often possess traits that actively interfere with the process of psychotherapy and make working with them difficult (eg, impulsivity, blaming others) [4]. Additionally, the individual's criminal past, tendency towards violence, and irresponsibility may affect the therapist's feelings towards them. Many providers find it difficult, if not impossible, to work with individuals with these traits.

Mental health professionals experienced in treating ASPD who are able to anticipate their emotions, present an attitude of acceptance tempered with limit setting, and confront problematic behaviors without moralizing, provide the best prospects for treatment [17].

Efficacy of CBT — Trials for treatment of ASPD with CBT have not consistently supported any psychological intervention [19,20]. In one trial, 52 men with ASPD and recent aggression were randomly to receive CBT plus treatment as usual or treatment as usual alone [20]. At 12 months, both groups demonstrated similar declines in the number of reported aggressive acts (physical and verbal). Trends in favor of CBT were seen for problematic drinking, social functioning, and developing more positive beliefs about others. Other data suggest a role for CBT in the treatment of ASPD; however, larger randomized trials may demonstrate more robust evidence of efficacy [21,22].

CBT may be useful in the treatment of some disorders that co-occur with ASPD. (See 'ASPD with comorbid disorders' above.)

Adjunctive psychosocial interventions — We use these interventions in addition to CBT for individuals with limited response to CBT or in cases with specific stressors (ie, marital discord). Limited data support their use.

- **Psychoeducation** – A subgroup analysis of a trial of psychoeducation and problem-solving therapy for personality disorders did not find evidence of efficacy for ASPD [23]. Twenty-four patients with ASPD were randomly assigned to receive either brief psychoeducation (eg, education about personality disorders and their potential effects on psychosocial functioning) plus problem-solving group sessions or to a waiting list with treatment as usual. After an average of 24 weeks, no difference was seen between groups on measures of problem solving or social functioning.

  A clinical trial comparing a short-term psychoeducational program with treatment as usual in 175 people with ASPD receiving treatment for an SUD found that the program improved adherence to SUD treatment [24]. The direct effects of the program on abstinence and ASPD behaviors were not reported. However, a post-hoc secondary analysis found that the program increased the subject's sense of having received help for their ASPD, which was associated with more days abstinent, fewer treatment drop outs, and increased treatment satisfaction with regard to their comorbid SUD [25]. The six-session program was designed to address impulsive and self-destructive behaviors associated with ASPD.

- **Marital/family therapy** – In individuals whose symptoms have been disruptive to their families, or other committed relationships, we suggest family or marital therapy. We try to engage the family members in order help them gain a better understanding of how the disorder has impacted the relationship. Additionally, it is helpful for family members to receive guidance about their interactions with their relative with ASPD. Couples therapy will not be beneficial if the antisocial person is disruptive or lacks empathy.

- **Schema therapy and contingency management** – Small, randomized trials including individuals with ASPD appear to show improved social functioning with schema therapy and contingency management compared with treatment as usual, and reduced number of harm days with dialectical behavior therapy compared with treatment as usual [26]. The evidence in each case was of low certainty.

  Schema therapy and contingency management are discussed separately. (See "Borderline personality disorder: Psychotherapy", section on 'Schema-focused therapy' and

"Substance use disorders: Principles, components, and monitoring during treatment with contingency management".)

Severe ASPD (psychopathy) — We do not treat individuals who have high levels of ASPD pathology (eg, psychopathy) with psychotherapy. Rather, when present, we address comorbid disorders (eg, depression, anxiety) with pharmacotherapy according to the recommended guidelines for the disorder. We address aggressive behaviors with pharmacotherapy. (See 'ASPD with comorbid disorders' above and 'Individuals with aggressive behavior' below.)

Psychotherapy may be ineffective or even harmful when provided to persons with psychopathy or severe ASPD [27,28]. One perspective is that the rigid personality structure of these individuals generally resists outside influence [27], observing that in therapy, many often simply go through the motions, and may even learn skills that help them better influence or exploit others. This concern is particularly pronounced for group therapy.

Psychopathy is described separately. (See "Antisocial personality disorder: Epidemiology, clinical manifestations, course, and diagnosis", section on 'Psychopathy'.)

Individuals with aggressive behavior — We treat individuals with ASPD (including those with severe ASPD) and aggressive behavior with medications.

Indications for medication treatment — Aggressive behavior, which can be prominent in some patients with ASPD, may be a target symptom of daily medication treatment. The decision to treat aggression with medication in patients with ASPD should be based upon:

- The severity of symptoms with respect to impairing the individual's ability to function in their environment (eg, in the community or in an institutional setting)
- The patient's willingness to take the medication
- The availability of a clinician to monitor treatment and evaluate its effectiveness

Limited data support the use of pharmacologic management in the treatment of aggressive behavior in individuals with ASPD [15,29,30]. In a meta-analysis, there was insufficient evidence supporting the use of any single pharmacologic intervention in the treatment of aggression in ASPD; however, small trials and cases reports suggest that several medication may be useful reducing aggressive behavior in samples of individuals associated with higher rates of ASPD (eg, prisoners, individuals with a history of aggression, children with conduct disorder) [30].

Antipsychotics as first choice for aggression — We treat individuals with aggression in the context of ASPD with second-generation antipsychotic medications as our first choice. Our

preference comes from our clinical experience and case reports [31,32]. We prefer to use second-generation antipsychotics due to their sedative properties and for some agents, their favorable side effect profile. There are no randomized trials of antipsychotic medications for aggressive behavior in patients with ASPD. (See "Second-generation antipsychotic medications: Pharmacology, administration, and side effects".)

We treat individuals with aggressive behavior in the context of ASPD with doses of antipsychotics towards the lower end of the therapeutic range. In our experience, a lower dose can be useful in lessening aggressive behaviors while minimizing the risk of adverse effects.

As examples, we begin risperidone at 1 mg per day and titrate by 1 mg each week to a total of 3 to 4 mg of risperidone daily. We then wait for a full 8 to 12 weeks and monitor behavior. For individuals with ongoing aggressive behavior, we continue to titrate the medication by 1 mg per week towards 6 mg per day (upper end of the usual dose range).

Quetiapine is a reasonable alternative to risperidone; we initiate treatment at 25 mg and titrate by 25 mg per week to 100 mg/day. We then wait a full 8 to 12 weeks to monitor behavior prior to further increases. We typically then titrate by 50 mg per week to 150 to 200 mg per day. It is rarely necessary to go to higher doses, such as may be used in schizophrenia.

In all individuals treated with second-generation antipsychotic medications we monitor for side effects and metabolic dysregulation at regular intervals. (See "Schizophrenia in adults: Maintenance therapy and side effect management", section on 'Monitoring'.)

For individuals who tolerate and respond adequately to antipsychotic treatment (eg, less aggressive behavior), we continue medications indefinitely while monitoring for side effects on a regular basis (see "Schizophrenia in adults: Maintenance therapy and side effect management"). There are no randomized trials of antipsychotic medications for aggressive behavior in patients with ASPD; however, case reports suggest that these drugs may be useful [31,32]:

- A case series of four patients with ASPD and aggressive behavior, found that voluntary treatment with quetiapine (typical dose 600 to 800 mg/day) was associated with decreased irritability, impulsivity, and aggressiveness [31].
- In one case report, a 32-year-old man with ASPD was successfully treated with risperidone for severe violent behavior [32]. He was initially treated with 6 mg/day and developed extrapyramidal symptoms that required treatment with biperiden, propranolol, and diazepam. He continued treatment on a maintenance dose of risperidone 3 mg/day.

Adverse effects of second-generation antipsychotics include extrapyramidal symptoms, weight gain, and metabolic syndrome. (See "Second-generation antipsychotic medications: Pharmacology, administration, and side effects" and "Schizophrenia in adults: Maintenance therapy and side effect management", section on 'Side effect management'.)

Subsequent treatment for inadequate response

- **Trial of another second-generation antipsychotic medication** – For individuals who do not respond adequately to treatment with a second-generation antipsychotic medication, our preference is to try another second-generation antipsychotic rather than another class of medications. Individuals who do not respond to one antipsychotic may respond favorably to another antipsychotic. Our preference is to taper off of the first antipsychotic then start the second antipsychotic at a low dose and titrate while monitoring for effect. (See 'Antipsychotics as first choice for aggression' above.)

  For individuals who do not respond to two antipsychotics our preference for further pharmacologic management is discussed below. For individuals with ASPD our preference is to try medications sequentially to avoid polypharmacy. Limited data support the efficacy of these treatments for aggression in individuals with ASPD.

- **Selective serotonin reuptake inhibitors (SSRIs)** – We use SSRIs for aggressive behavior in ASPD according to guidelines used for the treatment of depression. We typically begin sertraline at 50 mg and titrate by 50 mg per week to 150 to 200 mg per day. If the medication is tolerated, we monitor for 6 to 12 weeks for effect. If effective, we continue this medication indefinitely. (See "Selective serotonin reuptake inhibitors: Pharmacology, administration, and side effects".)

  SSRIs have not been tested in randomized trials of patients with ASPD; however, three small trials of impulsive aggression or anger in patients with other personality disorders have found mixed results. For example, in separate trials, treatment with fluoxetine has led to sustained reduction in aggression, as compared with placebo, on measures of irritability and anger in individuals with borderline personality disorder [33,34]. Additionally, in a trial including 38 individuals with borderline personality disorder, six weeks of treatment with fluvoxamine led to a reduction in rapid mood shifts but no difference in impulsivity or aggression versus placebo [35]. (See "Intermittent explosive disorder in adults: Treatment and prognosis", section on 'Pharmacotherapy'.)

- **Lithium** – We occasionally use lithium for treatment of impulsive aggressive behavior in individuals with a personality disorder (including ASPD). We use lithium at doses and blood

levels recommended for bipolar disorder. (See "Bipolar disorder in adults and lithium: Pharmacology, administration, and management of adverse effects".)

Lithium carbonate has been found to be effective in one randomized trial [36,37]. In the trial, 66 male prison inmates with a chronic, impulsive aggressive behavior received either lithium or placebo for three months, dosed to achieve a blood level of 0.6 to 1.0 MEq per liter [37]. Individuals receiving lithium committed fewer infractions of prison rules involving threatening behavior or assaults than individuals receiving placebo. (See "Bipolar disorder in adults and lithium: Pharmacology, administration, and management of adverse effects".)

- **Antiseizure medications** – We occasionally use antiseizure medications such as carbamazepine or phenytoin, at blood levels and doses recommended for bipolar disorder.

  Antiseizure medications have been found to reduce impulsive aggression in randomized trials of diverse study populations [29,38,39]. None of the studies were limited to individuals with ASPD; however, none of the trials excluded patients with personality disorders or SUDs. (See "Bipolar mania and hypomania in adults: Choosing pharmacotherapy", section on 'Anticonvulsants'.)

  - A meta-analysis of four randomized trials found phenytoin to reduce aggressive behavior in patients with a history of aggression [39]. Trials were conducted in a combination of prison and community settings.

  - Oxcarbazepine and carbamazepine, respectively, were found to reduce aggressive behavior in two randomized trials, one in a sample of patients with impulsive aggression [40] and the other with intermittent explosive disorder [41].

  - Two trials of divalproex in adults with a history of aggressive behavior showed mixed results [39].

- **Propranolol, buspirone, and trazadone** – We use these medications to treat aggression in the context of ASPD in individuals brain injury or in intellectually challenged individuals [42,43].

  Response to medication has been variable; while some patients have shown improvement, others failed to improve at all. Improvement, when it has occurred, has been partial, meaning that the individual had fewer outbursts than before, or had longer periods between them.

Pharmacotherapy for emergent management of the acutely agitated, aggressive patient is discussed separately. (See "Assessment and emergency management of the acutely agitated or violent adult".)

Medications to avoid — We avoid prescribing medications with potential for misuse or dependence in individuals with ASPD.

We avoid benzodiazepines in patients with ASPD due to the increased risk of addiction and risk of behavioral disinhibition. It is possible that benzodiazepines will increase aggressive outbursts and other externalizing behaviors in these patients, an adverse response that has been documented in persons with borderline personality disorder [44].

We avoid stimulant medications in individuals with ASPD with co-occurring adult attention deficit hyperactivity disorder. We typically begin treatment with non-addicting medications such as bupropion or atomoxetine [45]. As a second-line option, stimulant medication such as methylphenidate or dextroamphetamine can be prescribed in selected patients (eg, those without a history of an SUD). We monitor use of these medications closely due to their potential for abuse. We do not prescribe stimulants to patients with a current SUD, though their use can be considered for patients with a past SUD. (See "Attention deficit hyperactivity disorder in adults: Epidemiology, clinical features, assessment, and diagnosis".)

We avoid the use of opioids to treat pain in patients with ASPD when alternative treatments are available. (See "Approach to the management of chronic non-cancer pain in adults" and "Approach to the management of acute pain in adults".)

SOCIETY GUIDELINE LINKS

Links to society and government-sponsored guidelines from selected countries and regions around the world are provided separately. (See "Society guideline links: Personality disorders".)

SUMMARY AND RECOMMENDATIONS

- **Treatment** – Our preference for treatment modality is based on symptom severity, the presence of aggressive behaviors, and the presence of co-occurring disorders. This is presented in the algorithm (algorithm 1). (See 'Treatment of antisocial personality disorder' above.)

- **Comorbid conditions** – We address comorbid disorders (eg, mood disorders, substance use disorders, attention deficit hyperactivity disorder) as a first step in the treatment of individuals with antisocial personality disorder (ASPD). We address the comorbid disorders according to their preferred treatment method; however, we avoid treatment with medications that have an increased risk of misuse or dependence. (See 'ASPD with comorbid disorders' above.)

- **Mild or moderate ASPD** – For persons with mild or moderate ASPD, we suggest cognitive-behavioral therapy (CBT) rather than medication management (**Grade 2C**). CBT may benefit those with milder forms of the disorder and those who possess some insight or have reason to improve (eg, individuals who risk losing a spouse or job due to their behavior). (See 'Mild or moderate ASPD' above.)

- **For severe ASPD (psychopathy)** – We do not treat individuals who have high levels of ASPD pathology (eg, psychopathy) with psychotherapy. Psychotherapy may be ineffective or even harmful when provided to persons with psychopathy or severe ASPD. However, we address comorbid disorders and aggressive behaviors as described. (See 'Severe ASPD (psychopathy)' above and 'ASPD with comorbid disorders' above and 'Individuals with aggressive behavior' above.)

- **For aggressive behavior** – For individuals with ASPD and aggression who are willing to take medication, we suggest treatment with a second-generation antipsychotic medication rather than other medications (**Grade 2C**). (See 'Antipsychotics as first choice for aggression' above.)

  Limited data support the efficacy of medication in the treatment of aggressive behavior associated with ASPD. Our preference is to try medications sequentially to avoid polypharmacy. (See 'Individuals with aggressive behavior' above and 'Indications for medication treatment' above.)

  For individuals that do not respond adequately to treatment with a second-generation antipsychotic medication, our preference is to try another second-generation antipsychotic rather than another class of medications.

  If second-generation antipsychotics are ineffective or not tolerated our preference is to try a selective serotonergic antidepressant as the next agent. Subsequent or alternative options include lithium and antiseizure medications. (See 'Subsequent treatment for inadequate response' above.)

- **Medications to avoid** – Medications with potential for misuse or dependence should be avoided in individuals with ASPD. (See 'Medications to avoid' above.)

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