Antipsychotic drugs for aggression in intellectual disability

The use of antipsychotic drugs to treat behaviours such as aggression and self-injury in people with intellectual disability is one of the most controversial issues in mental health.1 The need to treat these serious problems effectively has resulted in high rates of use of antipsychotic drugs in both community and inpatient settings.2 This trend has continued despite sparse evidence of drug efficacy for treating aggression in people with intellectual disability and the potential for long-term side-effects with both typical and atypical antipsychotics.3 For these and other reasons, researchers have continued to stress the urgent need for research.4,5 Thus the randomised controlled trial in today’s Lancet by Peter Tyrer and colleagues6 is both timely and important.

Tyrer and colleagues measured the effects of risperidone, haloperidol, and placebo on the aggressive behaviour of 86 individuals with intellectual disability. Participants were drawn from inpatient and community settings in the UK and Australia. The main finding was that although there were decreases in aggression in all three groups after 4 weeks, patients receiving placebo had the most significant reductions. There is much to commend about Tyrer and colleagues’ study. The data are international, and the method was sophisticated and paid careful attention to dose, which is rare. Although the authors note that a larger sample size would have been better, the numbers are impressive in view of the practical, legal, and cultural issues associated with recruiting for such research. However, a point of contention about the conclusions is whether the measures used to assess aggression were sufficiently sensitive to detect treatment effects. In this respect, operational definitions of aggression specific enough to account for the heterogeneity of the problem are required. This becomes particularly problematic in comparisons of individuals living in community-based settings with those living in institutions, because aggressive behaviours are likely to be more severe in the latter setting.

Tyrer and colleagues’ main conclusion is that antipsychotic drugs should no longer be regarded as routine treatment for aggression in people with intellectual disability, although special cases of psychotropic drug therapy might still be warranted in extreme forms of disruptive behaviour or the presence of a comorbid psychiatric condition, for example. We concur, particularly for children, and especially because most aggression in people with intellectually disability has an environmental function, such as escape from demands, attracting carer’s attention, or gaining access to preferred items.7 However, this opinion is a departure from conventional wisdom. Additionally, there are several factors that might hinder a change in practice.

One major issue is that two parallel theoretical models govern modern-day treatments. One approach is biologically oriented and emphasises differential diagnosis and drug treatment. The second model is applied behavioural analysis, which rejects symptom complexes in favour of operant explanations of behaviour and treatment. With such an approach, the functions that maintain the behaviour are assessed, and this information is used to create individualised treatment protocols. Much has been published on the treatment of challenging behaviour in people with developmental disabilities. For example, Machalicek and colleagues8 identified 26 studies in a 10-year span specific to school settings. The total published work in all settings since 1970 is thus large.9 Both approaches do have merit and may benefit the person with intellectual disability and aggression, yet rarely are the two methods used together.

Second, insufficiently trained staff makes implementation of applied behavioural analysis difficult outside university clinics and hospitals, and in many routine settings this is a strong motivator for the use of drugs.
Waiting times for scoliosis surgery

The wait for surgical treatment of scoliosis is long in some countries, especially in those with publicly funded health-care systems. The wait is about 5–9 months in the UK, and more than 1 year in Canada. For children with adolescent idiopathic scoliosis, the most common form, such long times could have serious consequences if their spinal curvature worsens during this period.

Does such a long wait for surgery have an adverse effect on patients with all types of scoliosis? For instance, does the spinal curve progress such that it becomes stiff and additional surgical procedures are needed? If so, operation time will probably be increased, and the spinal curve might be inadequately corrected, and the risk of neurological defects might double. At a meeting of the US Scoliosis Research Society (in partnership with the British Scoliosis Society) in Edinburgh, UK, Sept 5–8, 2007, investigators from Canada and the UK went some way to addressing these issues.

Henry Ahn and colleagues,1 from the University of Toronto, looked at adverse events associated with delay in treatment for 216 children aged 11–17 years with adolescent idiopathic scoliosis. The endpoint was the need for surgery that was additional to that planned at the first appointment in those with wait times of less than 6 months versus those waiting 6 months or more. Strikingly, of the patients who needed additional unplanned surgery, 13 (87%) had to wait for between 204 and 544 days for surgery. The median curve progression in this group was 20° (range 10–38°). Curve correction was greater in the group with the shorter wait time, and operating time was greatly increased in the long-wait group. Overall, the odds of an adverse event were tripled by 6 months of waiting compared with 1 day of waiting (odds ratio 3·31 vs 1·01). On the basis that about two-thirds of adverse events occurred after 5 months of waiting for surgery, Ahn concluded that

Without a careful cost-benefit analysis of therapeutic effects versus side-effects, what works might be defined by decreases or absence of aggression, which are also accompanied by decreases in or absence of many prosocial skills. We characterise this approach as sedation rather than effective treatment.

Lastly, intervention during aggressive acts can, and often does, result in injury to both patients and staff or, in some instances, allegations of abuse. In this respect, antipsychotic medication can be viewed as a more passive treatment because it is typically given while the person is calm, which thus mitigates these issues. Additionally, for antipsychotic medication, a psychiatrist, neurologist, or other medical professional takes primary responsibility for care, whereas a behavioural intervention requires coordination in planning and implementation by various staff who may not want that responsibility. Thus attempts to minimise drug use, while a worthy goal, may be difficult to achieve on a large scale.

Tyrer and colleagues present an important study on a prominent topic in mental health. Their data add substantially to the international debate on treatment of aggression in intellectually disabled people, a highly vulnerable group. The interface of assessment and treatment with behavioural and drug interventions nonetheless requires further study.

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