

**ADOLESCENT BIPOLAR DISORDER & SUBSTANCE ABUSE:  
TREATMENT ISSUES**

**Presented by Linda S. Zamvil, M.D.**

**COMPLICATED CLINICAL AND NEUROCHEMICAL PICTURES**

How do you intervene with an adolescent who has a mood disorder and substance abuse and other learning difficulties, which include attention deficit, and may be in the juvenile justice department because they have a conduct disturbance? They also may have anxiety disorders or are school phobic. The comorbidity that presents in complex clinical situations is more and more attributed to the neurochemical interrelationships present in the brain than was previously thought. The circuitry in the brain and the neurotransmitters are very complicated.

**LACK OF EMPIRICAL TREATMENT KNOWLEDGE**

Treatment for bipolar illness and substance abuse is done in a very systematic way with recognition that each adolescent is different and should be treated in an individualized manner. All the present literature and data available is primarily from adult studies. Even what we think we know often times does not work for children and there are disagreements among the professionals themselves. For example, there is one controlled anti-depressant study that has been done in children, a SSRI Prozac study found in an 8-week trial that Prozac was better than the placebo. Now, there are psychiatrists who think 8 weeks may not be enough time to show a switching from depression to hypomania or mania. This is based on the data that most kids with a depression may be within the bipolar spectrum. Data suggests that 20% to 40% of children who present with a depression will within 5 years time be diagnosed with bipolar disorder. Most of my colleagues, at least of half of them, would disagree and point out that it is just that their bodies are different that they respond differently. Even in adults not all of the medicines work or they work for a limited amount of time and then you have to find something new and different. Psychopharmacological treatment is often more art than science. It can be an extended process to find the right medicine for a child.

## **PSYCHOPHARMACOLOGICAL THERAPEUTICS**

Being non-judgmental is very important when making psychopharmacological decisions. Present the literature, your opinions and rationale, your clinical practice, listen to the caregiver and the youth and then make recommendations. “I don’t tell people what to do. I don’t tell kids what to do. I don’t tell their parents what to do. I make recommendations. I say this is what we know from the literature. I agree with this. I disagree with what this study says. This is my clinical practice. This is what seems to make sense. This has worked for me. This hasn’t worked for me. You have family members who have been on this agent. This was beneficial to them.”

Explain to the adolescent the consequences of their behavior. The adolescent needs to be able to own their own behaviors and the consequences of their behaviors in order to develop the awareness and motivation to change them and to follow treatment regimens. Provide them with information about the drugs they are using and the consequences of their behaviors.

Explain the whole process of recovery. Explain the process of recovery from substance abuse and from the mood episode, from a mania and from a depression. Review the physical and psychological effects and impact of the illnesses and that there is recovery. Spend time talking about stigma and how it affects them and their relationships with others.

## **ASSESSMENT**

Assessment is of paramount importance. A thorough history, including lab work with thyroid function tests, a neurological evaluation, EEG and MRI, is needed. When you assess for what substances are being used, realize that it usually is not just one but multiple. Other drug use, such as cigarettes and coffee, should be evaluated. Symptoms through every developmental age need examination. Family histories need to be complete and the parents’ own use and abuse patterns evaluated.

## **LEVELS OF CARE**

Hospitalization is an option for youth that are a serious risk to themselves or others. It is also a place that a thorough and needed assessment can occur. Unfortunately, the availability of this level of care is limited. Other levels of care include partial hospital programs, intensive

outpatient programs, group therapy and individual counseling. Self-help is also very important as youth frequently depend on each other. Al-Anon and ACOA also are very helpful and are ways to introduce youth to issues of substance abuse. Participation in AA, NA, Cocaine Anonymous and Manic-Depressive Association groups should be encouraged, however, they frequently are geared toward adults. The 12-step community, for the most part, has become more accepting of the need for lifelong medications for those with a serious mental illness.

### **ABSTINENCE FOCUSED**

The focus in the treatment should be on abstinence for the adolescent with chemical dependency, even though many adolescents will not be able to achieve abstinence. Relapse is to be expected in the adolescent and recovery should be seen as a process over time. As Mark Twain said, "Stopping smoking is easy, I have done it dozens of times." When relapse occurs the focus becomes one of getting the adolescent back on track and helping them learn from the relapse. Both chemical dependency and bipolar disorder are relapsing and chronic in nature. When people are diagnosed with a bipolar illness they should stay on the medications that are working. Side effects should be minimized but treatment is for a lifelong illness. For example, in a study of adults who had been on Lithium for 3 decades and the Lithium was discontinued, when they did have a relapse they did not respond as well to the Lithium the next time. Education about the need to remain on medication for continued effectiveness is a critical piece for continued compliance. However, most youth and adults when feeling better will want to try stopping. Treatment relationships should be maintained during these periods and the relapses dealt with quickly to get the individual back on the path to recovery.

### **THERAPY**

There are a whole variety of therapies available that should be used with psychopharmacology. The type of therapy - behavioral, cognitive, supportive, case management or something else - is based upon the needs of the person.

### **COERCION**

Teenagers do not walk into a hospital, stop using and comply with their medications. On top of that is the fact that bipolar illness is associated with very high-risk behaviors and very

aggressive behaviors. When the adolescent's behavior escalates to dangerous and threatening levels, the legal system is an appropriate intervention. The coercion and legal leverage through the correctional system is appropriate at these points and can be used. The correctional involvement, however, is not a replacement for treatment and many youth correctional services historically have lacked treatment.

### **MONITORING**

Drug screens are important to monitor drug use and maintain honesty. They also are important when decisions about both privileges or rewards and sanctions or interventions are to be made. Moreover, as both bipolar illness and substance abuse often is episodic, relapses can be monitored through drug screens. Mood charts are useful to monitor changes in mood on a daily, weekly and monthly basis. They can aid in diagnosing mood disorders and be useful in self-monitoring and self-regulation.

### **PHARMACOLOGICAL TREATMENT FOR DEPRESSION**

Treatment of the depression can be done with Lithium or Depakote. When a child has bipolar illness Lithium is a frequent choice. If they have a relative who has not responded to Lithium, then Depakote, Tegretol or another agent should be tried. There is also Neurontin (gabapentin) and Lamictal (lamotrigine); however, Stevens Johnson's syndrome is a potential side effect of Lamictal. MAOIs also are indicated for depression but compliance with diet is required to avoid hypertensive crises and dietary restrictions can be difficult for the adolescent. SSRIs are used cautiously and in small amounts as they have been found to trigger mania. SSRIs likewise should be discontinued promptly when the depression remits due to this risk of mania. If the depression can be ridden out without medication that may be the best solution. The concern about anti-depressants in general is that they cause rapid cycling, making the depression worsen or sending the child into a mania and quicker cycles.

### **PHARMACOLOGICAL TREATMENT OF PSYCHOSIS**

All types of anti-psychotics can be useful, old ones and new ones. The newer anti-psychotic medications, though, have fewer side effects. However, if the child does not respond to

Risperdal (risperidone), Zyprexa (olanzapine) or Seroquel (quetiapine), an older medication such as Mellaril may be effective.

### **AGE OF ONSET**

In children for whom there is tremendous loading for psychiatric illness in their families, bipolar illnesses have been found to be manifesting earlier. There is a theory, genetic anticipation, that some illnesses (one of which is mood disorders) are manifesting earlier because of how DNA and RNA are translated. Huntington's Chorea is the illness that is used to illustrate this phenomenon. It used to be an illness that showed up around mid-life, 40's or 50's. It now is occurring in younger aged people in their 20's and even teens.

### **OTHER TREATMENTS FOR BIPOLAR DEPRESSION**

In adults there are treatments, such as sleep deprivation, where mania can be triggered. Adolescents need to be taught about sleep hygiene and the need to maintain regular and reasonable sleep and wake cycles. Medications may be used with caution and Klonopin (clonazepam) or other addictive drugs are avoided with people with substance abuse disorders.

Cognitive therapy, psychotherapy and ECT for psychotic depression are other appropriate therapies. ECT is not commonly used with adolescents. ECT also has been found to induce mania. ECT, however, is very effective in some instances, such as post-partum depression, where a quick response is desired and for individuals who do not respond to other treatments. ECT is used for psychotic depression. Bipolar disorder is the most common cause of psychotic depression, thus its implications for its use with bipolar illness.

### **TREATMENT FOR MOOD DISORDER**

A past study I conducted was a flexible dose open trial of valproate with adolescent psychiatric patients meeting DSM IIIR criteria for bipolar; this was before the DSM IV criteria for bipolar. A variety of scales were used to assess mood, including the Beck depression inventory, the hopelessness scale, the teenager self-evaluation report, the clinical global assessment scale and the clinical global improvement scale. The scales were administered by

trained research staff on the first day of admission and subsequently every two weeks. Valproate was found to be effective in improving mood.

### **OTHER STUDIES AND ISSUES**

A study that came out of Tewksbury State Hospital, where most of the people were bipolar with severe substance abuse but had never had the diagnosis. Over 40% of the unit population was bipolar. Many of them never received treatment for bipolar, although many had received substance abuse treatment. They were treated with Depakote; what was found was that there was an improvement in mood and sleep. There was no acne reported and nobody complained of nausea, a commonly reported side effect of Depakote or valproate. Tremors and sedation can occur and hypothyroidism is also reported.

Depakote has been felt by some to be helpful for people with substance abuse and bipolar disorders, more so than Lithium. However, the data is not available. The only study that is available is from Barbara Geller, MD in which she did a very rigorous test of Lithium in teenagers who were substance abusing. She found that it was better than placebo.

A study by Catherine Brady, MD, PhD, had nine subjects with substance abuse and bipolar illness. Of those nine persons, five had problems with alcohol, three had poly-substance abuse issues and one struggled with cocaine; again, these were all adults. It was an open label, non-blinded, non-controlled study. It appeared that the patients had a definite benefit from Depakote and minimal side effects.

ReVia (naltrexone) is another medication that has been used with people with alcoholism. Most young people, however, do not have alcohol dependence. More typical are issues of poly-substance abuse and some sort of psychiatric illness. Naltrexone (again in an adult study) has been shown to stop craving for alcohol. Over a 12-week time period, fewer adult patients taking the naltrexone relapsed versus those taking the placebo. Those on naltrexone also had lower craving scales.

## **PREGNANCY**

When a woman becomes pregnant I stop Lithium in the first trimester. For those planning pregnancy I attempt to go without medications and introduce them in the second trimester. In terms of the literature, the risks of cardiac problems are so slight that I think most people feel that patients with severe bipolar disorder should not be taken off Lithium. If they get pregnant, they should be monitored with cardiac ultrasound. The odds are that it is not going to be an issue. Cardiac abnormalities are the biggest concern. Now the question is what do you do when a mom wants to breast-feed and she has to stay on her Lithium. This a more serious concern because everything goes through breast milk. For moms on Prozac we measure Prozac levels. People do not think that there are any problems, but again, these children are being studied long-term. There is not much data yet.

## **SUMMARY**

Bipolar illness is a chronic relapsing illness that in adolescents is only starting to be studied. Interventions need to take a long-term perspective and the focus is on learning to live with the illness. Substance abuse may exacerbate the disorder and it clearly complicates the clinical picture and may be related in some fashion. Treatment needs to be directed toward both disorders and research on adolescents is needed. Adult models cannot be generalized in their entirety to the adolescent population.

## **About the Presenter**

Triple board certified in Adult, Child and Adolescent Psychiatry and Addiction Medicine, Linda S. Zamvil, MD, is the Director of Ambulatory Mental Health and Addictions at Cambridge Health Alliance and Medical Director of Cambridge Psychiatric Services. She is recognized for her special abilities with adolescent co-occurring disorders at many institutions and community hospitals in the Northeast. She is a frequently invited speaker through out the northeast in mental health communities, primary care communities and educational systems. Dr. Zamvil's current research focuses on the treatment of bipolar disorders in adolescents and children.

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