A Closer Look at Identifying

Depression in Children and Adolescents

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4 Hours Category 1

Series Chair

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Neal D. Ryan, M.D.	Joaquim Puig-Antich Professor in Child and Adolescent Psychiatry University of Pittsburgh
Elizabeth B. Weller, M.D.	Professor of Psychiatry and Pediatrics University of Pennsylvania

Objective

By actively participating in this course, attendees will understand the prevalence, signs and symptoms of pediatric/adolescent depression and treatment options.

Agenda

8:00-8:30 a.m.	Registration/Continental Breakfast
8:30-10:00 a.m.	***How to Appropriately Diagnose Depression in Children***
10:00-10:20 a.m.	Question-and-Answer Session
10:20-10:40 a.m.	Break
10:40 a.m.-12:10 p.m.	***How to Treat Depression in Children and Maximize Their Quality of Life***
12:10-12:30 p.m.	Question-and-Answer Session

FACULTY DISCLOSURE STATEMENTS

Boris Birmaher, M.D., has indicated that he has no relationships to disclose relating to the subject matter of his presentation.

James T. McCracken, M.D., has received grants and/or research support from Solvay Pharmaceuticals Inc., Shire Richwood, Inc., Gliatech and Eli Lilly and Company. He has also received honoraria from Shire Richwood, Inc., and Solvay Pharmaceuticals Inc.

Neal D. Ryan, M.D., is a consultant for Pfizer Inc., Abbott Laboratories, Hoffman-La Roche Inc., and AstraZeneca Pharmaceuticals LP. He has received grants and research support from GlaxoSmithKline and Wyeth Ayerst Pharmaceuticals.

Karen D. Wagner, M.D, Ph.D., receives grants and research support from and is a consultant and a member of the Advisory Board for GlaxoSmithKline, Pfizer Inc., Forest Pharmaceuticals, Inc. and Abbott Laboratories. She also serves as a consultant for Janssen Pharmaceutica Products, L.P. Bristol-Myers Squibb, Cyberonics and Eli Lilly and Company and is a member of the Advisory Board for Novartis Pharmaceuticals. She also receives grants and research support from Eli Lilly and Company, Bristol-Myers Squibb, Organon Inc. and Wyeth Pharmaceuticals. She is a member of the Speakers Bureau for GlaxoSmithKline, Abbott Laboratories, Eli Lilly and Company, Pfizer Inc. and Janssen Pharmaceutica Products, L.P.

Elizabeth B. Weller, M.D., has received honoraria, grants and research support from and serves as a consultant for NIMH, GlaxoSmithKline, Organon Inc., Abbott Laboratories, Wyeth-Ayerst Pharmaceuticals, Forest Pharmaceuticals, Inc., and Johnson & Johnson.

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Abstract

How to Treat Depression in Children and Maximize Their Quality of Life

Treatment for depression in children and adolescents includes psychotherapy and pharmacotherapy. The major forms of psychotherapy being studied in adolescents are interpersonal psychotherapy and cognitive behavior therapy. In an open trial, interpersonal therapy showed significant reduction in adolescents' symptoms of depression. Cognitive behavior therapy has been shown to be effective in treating depression in adolescents. With regard to medications, the selective serotonin reuptake inhibitors (SSRIs) including citalopram, fluoxetine, paroxetine and sertraline have shown significant reduction in depression in youths compared to placebo. Side effects experienced by children and adolescents on SSRIs in these trials have been mild, with the most common being nausea, stomachaches and headaches. Other antidepressants, such as nefazodone, venlafaxine, mirtazapine and bupropion require more controlled study in children and adolescents. Therefore, first-line medication treatment for children and adolescents are SSRIs. If a child fails to respond to one SSRI, then an alternate SSRI can be considered. If there continues to be no response, then alternative monotherapy such as bupropion, mirtazapine, nefazodone or venlafaxine can be initiated or augmentation strategies, such as buspirone, lithium or combination antidepressants. There are ongoing NIMH trials comparing SSRI, cognitive behavior therapy and combination treatment (SSRI plus cognitive behavior therapy) in the treatment of adolescent depression. There is also an ongoing NIMH study for treatment-resistant depression in adolescents—with the aim of determining whether a different SSRI, different class of agent or addition of cognitive behavior therapy improves treatment response in depressed adolescents.

■ Outline ■

I. **Psychotherapy**
   - A. Interpersonal psychotherapy
   - B. Cognitive behavior therapy

II. **Pharmacotherapy**
   - A. Selective serotonin reuptake inhibitors (SSRIs)
     1. Citalopram
     2. Fluoxetine
     3. Paroxetine
     4. Sertraline
   - B. Venlafaxine
   - C. Nefazodone
   - D. Bupropion

III. **Combination Treatment (Psychotherapy Plus Medication)**

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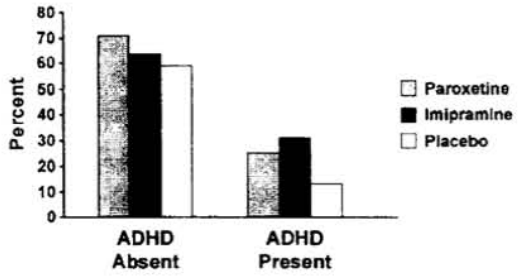
Key Slides

Side Effects of Paroxetine and Imipramine in Adolescents (Cont.)

	Paroxetine (N=93)	Imipramine (N=95)	Placebo (N=87)
Headache	34%	40%	39%
Dizziness	24%	47%	18%
Tremor	11%	15%	2%

Keller MG, Ryan ND, Strober M, et al. J Am Acad Child Adolesc Psychiatry. 2001;40(7):762-772

Comorbid ADHD and Treatment Response



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Citalopram Treatment for Depression in Children and Adolescents

- 174 outpatients, ages 7-17 years, with major depression
- Double-blind, placebo-controlled 8-week trial
- Randomized to citalopram, 20-40 mg (mean 23 mg) or placebo

Wagner KD, Robb AS, Findling R, Tisao PJ. ACNP. Waikoloa, Hawaii. 2001, p. 158 (Science abstract)

Key Slides

Baseline Characteristics

	Placebo (N=85)	Citalopram (N=89)
Age (mean years, range)	12.1 (7-17)	12.1 (7-17)
Gender (% female)	54%	53%
Race (% Caucasian)	73%	81%
Duration of illness (years)	2.2	2.3
CDRS-R (mean)	57.8	58.8
CGI-S (mean)	4.3	4.4

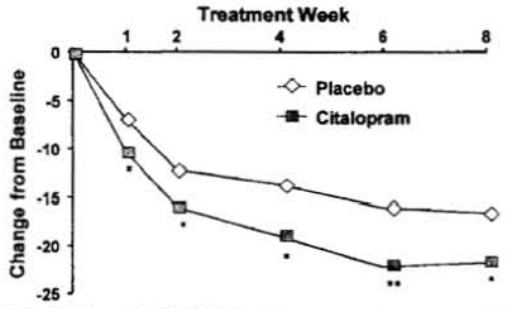
Wagner KD, Robb AS, Findling R, Tiseo PJ. ACNP. Waikoloa, Hawaii. 2001, p. 158 (Science abstract)

Citalopram Dose

	Children (N=45)	Adolescents (N=47)
Mean at week 8	23.3 mg/day	24.4 mg/day

Wagner KD, Robb AS, Findling R, Tiseo PJ. ACNP. Waikoloa, Hawaii. 2001, p. 158 (Science abstract)

Childhood Depression Rating Scale-Revised (CDRS-R)



*p<0.05; **p<0.01; Wagner KD, Robb AS, Findling R, Tiseo PJ. ACNP. Waikoloa, Hawaii. 2001, p. 158 (Science abstract)

Key Slides

Remission Rate by Age Group

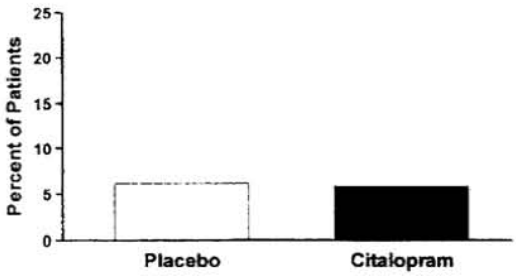
p<0.05; *CDRS-R ≤28 at study endpoint; Wagner KD, Robb AS, Findling R, Tiseo PJ. ACNP. Waikoloa, Hawaii. 2001, p. 158 (Science abstract)

Most Frequent Adverse Events

Adverse Event*	Placebo (N=85)	Citalopram (N=89)
Headache	20%	19%
Nausea	4%	13%
Rhinitis	6%	13%
Abdominal pain	7%	11%
Influenza-like symptoms	0%	7%

*All adverse events occurring in more than 5 citalopram-treated patients; Wagner KD, Robb AS, Findling R, Tiseo PJ. ACNP. Waikoloa, Hawaii. 2001, p. 158 (Science abstract)

Discontinuation for Adverse Events



p = NS; Wagner KD, Robb AS, Findling R, Tiseo PJ. ACNP. Waikoloa, Hawaii. 2001, p. 158 (Science abstract)

Self-Assessment Questions

1. **The prevalence rate of depression in children is approximately:**
   - A. 5%
   - B. 10%
   - C. 15%
   - D. 20%

2. **The relapse rate in childhood depression is approximately:**
   - A. 20%
   - B. 50%
   - C. 75%
   - D. 90%

3. **Which of the following medications has been shown to be more effective than placebo in the treatment of depression in children and adolescents?**
   - A. Venlafaxine
   - B. Nefazodone
   - C. Citalopram
   - D. Bupropion

4. **Which form of psychotherapy has been shown to be effective in a controlled trial in treating depression in adolescents?**
   - A. Family therapy
   - B. Supportive therapy
   - C. Cognitive-behavior therapy
   - D. Insight-oriented therapy

Answers

1. A
2. B
3. C
4. C