

HOSPITAL PHYSICIAN®

NEUROLOGY BOARD REVIEW MANUAL

STATEMENT OF EDITORIAL PURPOSE

The *Hospital Physician Neurology Board Review Manual* is a peer-reviewed study guide for residents and practicing physicians preparing for board examinations in neurology. Each manual reviews a topic essential to the current practice of neurology.

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This publication has been developed without involvement of or review by the American Board of Psychiatry and Neurology.

Neurologic Illness in Pregnancy

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Cover Illustration by Kathryn K. Johnson

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Neurologic Illness in Pregnancy

Autumn M. Klein, MD, PhD


INTRODUCTION

Several challenges arise in caring for women who present with or require treatment for neurologic conditions during pregnancy or the postpartum period. Due to the difficulties in studying pregnant women and the risk of exposing a developing fetus to undue harm, there are limited high-quality data on which to base clinical assessments and interventions and an unclear understanding of how physiologic changes of pregnancy may affect the pattern and presentation of neurologic symptoms. Given limited safe diagnostic interventions, the clinical history and neurologic examination are crucial. Treatment options are similarly limited due to potential teratogenic and perinatal effects. In addition, patient concerns and preferences may significantly influence clinical decision making. Many women will not take medications or undergo imaging during pregnancy. After delivery, treatment of neurologic illness must take into consideration the effects of medications on lactation and the ability to care for a newborn.

This manual presents 4 pregnancy-related cases a neurologist might encounter on an inpatient consultation service or in the outpatient setting. The cases highlight diagnostic and therapeutic considerations specific to pregnant women and illustrate prognostic patterns in women with neurologic illness during pregnancy.

CASE 1: A PREGNANT MIGRAINEUR WITH CHRONIC HEADACHE

CASE PRESENTATION AND HISTORY

 A 37-year-old woman with a history of migraine presents for management of chronic headache during pregnancy. The patient is at 10 weeks' gestation with twins; this is her first pregnancy.

The patient reports that her first bad headache occurred before menarche, at approximately age 11 years. The headache was unilateral and throbbing and accompanied by nausea and vomiting. The patient reports similar headaches over the next few years, all unilateral,

throbbing, and associated with nausea, vomiting, and photophobia. Initially, the headaches occurred a few times a year, with no clear trigger, but in college they occurred almost every month right before her period and lasted a few days. During that time, the patient started an oral contraceptive pill (OCP) for painful endometriosis. Her headaches initially became more severe and more frequent while on OCPs. After trying a few different OCP preparations, the patient found one that seemed to help, and for several years her headaches were perimenstrual only and were mild and easily treated with nonsteroidal anti-inflammatory drugs (NSAIDs). However, her headaches eventually became more severe and more frequent. Her gynecologist tried continuous OCPs for 3 to 4 months at a time, which initially helped, but the headaches worsened once again after a few years. At about this time, while in her early 30s, the patient got married and stopped OCPs in the hope of getting pregnant.

The patient notes that her headaches became even more intense and more frequent after stopping OCPs. Because she was trying to get pregnant, she limited her medication use to acute treatment with acetaminophen, ibuprofen, naproxen, butalbital compounds, or aspirin preparations. Over the next few years, her headaches increased to the point that she had one almost every day and required increased use of acute treatments. During this time, she sought the advice of a reproductive medicine specialist. It was determined that her endometriosis as well as a low percentage of mobile sperm were likely causes of her inability to conceive. After 8 cycles of in vitro fertilization (IVF), she became pregnant with twins.

At today's visit, the patient reports that her headaches are more frequent and more intense than ever. She experiences severe headaches 6 to 8 times per month and milder-intensity headaches on most other days of the month. She is taking analgesics almost daily and is unwilling to take any stronger medication that could harm the fetuses. She asks if there is anything else she can do for her headaches and notes that she read that migraines sometimes improve with pregnancy.

- **What does this patient's headache history suggest that may help predict future headaches during her pregnancy?**