This section of the Journal is designed to present clinical problems which focus on patient management, problem-solving, and other elements integral to family medicine. The intent of this section is aimed more at teaching and learning than self-assessment as an evaluation or scoring device. Reinforcement of major teaching points is therefore included through the further discussion and supplemental references which appear on the following pages. Critical comments relating to these self-assessment materials are invited and should be submitted as Letters to the Editor.

Self-Assessment in Family Practice

These materials have been prepared by members of the Self-Assessment Panel of *The Journal of Family Practice.* Membership: R. Neil Chisholm, MD, Chairman (University of Colorado, Denver), B. Lewis Barnett, MD (Medical University of South Carolina, Charleston), Leland B. Blanchard, MD (San Jose, California), Paul C. Brucker, MD (Thomas Jefferson University Hospital, Philadelphia, Pennsylvania), Laurel G. Case, MD (University of Oregon Medical School, Portland), Silas W. Grant, MD (University of Alabama, Huntsville), Ian R. Hill, MD (Plains Health Centre, Regina, Saskatchewan), Kenneth F. Kessell, MD (MacNeal Memorial Hospital, Berwyn, Illinois), John A. Lincoln, MD (University of Washington, Seattle), James G. Price, MD (Brush, Colorado), Richard C. Reynolds, MD (University of Florida, Gainesville), Gabriel Smilkstein, MD (University of California, Davis), William L. Stewart, MD (Southern Illinois University, Springfield).

Question A

You have just performed a vasectomy on a 30-year-old man with a stable marriage and three healthy children. The following questions relate to the post-operative course and care for this patient.

1. With regard to resumption of normal activities, which of the following statements are correct?
   - A. Most patients can return to nonstrenuous work within 48 hours after vasectomy.
   - B. It is usually advisable to stay away from work for one week after vasectomy.
   - C. Sexual activity may be resumed whenever the patient feels ready.
   - D. Sexual activity should not be resumed for two weeks in order to promote healing and reduce the incidence of recanalization.
2. With regard to after-care, which of the following statements is/are correct?
   - A. The post-vasectomy patient must be considered potentially fertile for at least two months post-operatively.
   - B. The post-vasectomy patient must be considered potentially fertile for at least four months post-operatively.
   - C. One negative sperm count confirms that subsequent unprotected intercourse is "safe."
   - D. Two consecutive negative sperm counts are required before unprotected intercouse can be considered "safe."

Question B

Concerning the diagnosis of meningitis in the newborn infant, which of the following statements is/are correct? Select one or more correct answers.

- A. Localizing neurologic findings are usually present.
- B. Septicemia is invariably present.
- C. Serial head circumference measurements are useful.
- D. Staphylococcus is the most common etiologic agent.
- E. Symptoms may be deceptively mild until the infection is far advanced.

Question A

Answers and Discussion

1. A. True. Most patients can return to non-strenuous work within 24 to 48 hours after vasectomy.
   B. False. There is normally no need to keep patients away from work for this period of time. The post-operative course of 85 percent of patients after vasectomy involves little or no pain, and most patients are able to resume work as noted above (A).
   C. True. Discomfort is really the only limiting factor involved in each patient's deciding when to resume sexual activity. The patient must be advised, however, to employ contraceptive measures at this stage.
   D. False. Early sexual activity following vasectomy does not affect the incidence of recanalization and/or sperm granulomas.
2. A. False. Mature sperm are stored in the epididymis and the proximal and distal vas deferens. Residual sperm may be ejaculated for a considerable period of time after the vasectomy. Several studies have shown that the time prior to becoming aspermic is quite variable. It is recommended that the post-vasectomy patient be considered potentially fertile for at least four months post-operatively.
   B. True. See discussion in A, above.
   C. False. It is now recognized by many authorities that a single negative sperm count does not always assure subsequent and continuing aspermia. Recanalization can occur even if an initial sperm count is negative. For these reasons, it is now recommended by many that two consecutive negative sperm counts be obtained during the first four months postoperatively before a post-vasectomy patient can be assumed to be infertile.
   D. True. See discussion in C, above.

Suggested Reading

Livingstone ES: Vasectomy: A review of 3,200 operations. Can Med Assoc J 105:1065, 1971

Leader AJ, Axelrad SD, Frankowski R, et al: Complications of 2,711 vasectomies. J Urol 111:365, 1974

Rees RWM: Vasectomy: Problems of follow-up. Proc R Soc Med 66:52, 1973

Schmidt SS: Prevention of failure in vasectomy. J Urol 109:296, 1973

Kase S, Goldfarb M: Office vasectomy: Review of 500 cases. Urology 1:60, 1973

Esho JO, Cass AS, Ireland GW: Morbidity associated with vasectomy. J Urol 110:413, 1973

Marshall S, Lyon RP: Variability of sperm disappearance from the ejaculate after vasectomy. J Urol 107:815, 1972

Question B

Answers and Discussion

A. False. Localizing neurologic findings are seldom present in documented cases of meningitis in the newborn infant. Other physical findings which are more often of diagnostic value are a bulging anterior fontanelle, lethargy, poor feeding, irritability, jaundice, and opisthotonus.

B. True. Since meningitis in the newborn infant results from blood-borne organisms, septicemia is invariably present.

C. True. Serial head circumference measurements are essential and often useful in following a newborn infant with suspected or demonstrated meningitis.

D. False. Escherichia coli is the most common etiologic agent in both sepsis and meningitis in the newborn period. One reason for this is the fact that immunoglobulin M (IgM), which contains antibodies to gram-negative organisms, is not transferred from the mother to the fetus.

E. True. The symptoms of sepsis (and meningitis) are often deceptively mild in the newborn infant until infection is far advanced. The early diagnosis of sepsis and meningitis in the newborn period is challenging, requires a high index of suspicion by the physician, and is important in as much as early institution of treatment bears heavily on the therapeutic outcome.

Suggested Reading

O'Kempe CH, Silver HK, O'Brien D: Current Pediatric Diagnosis and Treatment. Los Altos, Calif, Lange Medical Publications, 1976, pp 76-78