CME Section

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Every question or request for information on the exam answer sheet, the evaluation, and the certification pages must be completed to be eligible for CME credit. Leaving any item unanswered will make void the participant’s response, and no credit will be awarded.

Participants may read the articles, take the exam by issue (1 credit/issue), or wait to study several issues together. Documentation can be received at the *Journal* office at any time throughout the year, and accurate records will be maintained for each participant. CME certificates are issued only once per year, in January, for the total number of credits earned during the prior year.

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If you have any questions, please email the Editor (jneufeld@mail.cho.org).

This is an adult learning experience and there is no requirement for obtaining a certain score. The objective is to have each participant learn from the total experience of studying the article, taking the exam, and being able to immediately receive feedback with the correct answers.
CME Section

CME on the Evaluation of Ventriculoperitoneal Shunt Emergencies

CME Article number 2: D.O. Kessler, V.P. Shah, H. Weiner and J. Foltin

Questions

1. The most common indication for ventriculoperitoneal shunt placement is:
   a. Multi-infarct dementia
   b. Congenital or acquired hydrocephalus
   c. Pseudotumor cerebri
   d. Epidural hematoma

2. The majority of ventriculoperitoneal shunts placed will have at least one episode of malfunction over 10 years. How many can be expected to fail within the first year?
   a. < 5%
   b. 30–50%
   c. 60–80%
   d. > 90%

3. It is important to obtain a detailed history when suspecting a shunt malfunction, including all of the following except:
   a. When was the shunt initially placed?
   b. What developmental milestones has the patient achieved?
   c. Is there a family history of retinopathy of prematurity?
   d. What is the patient’s baseline mental status and cognitive function?

4. The majority of shunt infections present:
   a. Within the first six months after surgery
   b. Once the patient has reached puberty
   c. One year after surgery once the shunt has had time to epithelialize
   d. Within the first 6 hours post-operatively

5. Depressing the shunt reservoir to check for filling is:
   a. An invaluable diagnostic tool that should be performed immediately by the primary physician when an infection is suspected
   b. No longer done unless a patient is actively seizing
   c. Best done using a woods lamp to help detect flow
   d. Unlikely to alter management and should only be performed by an experienced neurosurgeon

6. The best known predictors for shunt failure are:
   a. Seizures and abdominal pain
   b. Bulging fontanelle and depressed level of consciousness
   c. Fever and time since initial shunt surgery
   d. Shortness of breath and weight loss

7. The best known predictors for a shunt infection are:
   a. Seizures and abdominal pain
   b. Bulging fontanelle and depressed level of consciousness
   c. Fever and time since initial shunt surgery
   d. Shortness of breath and weight loss
8. When suspecting a shunt malfunction, one should consider ordering the following imaging tests to aid in diagnosis:
   a. Shunt series
   b. CT scan
   c. Both a and b
   d. Radionucleotide scan

9. The most common cause of shunt failure is:
   a. Dehydration
   b. Poor hygiene
   c. Magnetic interference
   d. Mechanical problem

10. Caring for patients with ventriculoperitoneal shunts should be done by a multidisciplinary team that may include:
    a. Neurosurgeons
    b. Occupation and physical therapists
    c. Neurologists
    d. Psychiatrists
    e. All of the above