CONTINUING MEDICAL EDUCATION EXAMINATION

Hypersensitivity Reactions to Implanted Metal Devices: Facts and Fictions

Instructions for obtaining 1.6 Continuing Medical Education Credits

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CME Items

1. Why is the concern over metal hypersensitivity becoming increasingly important?
   a. Over the years, more procedures involving metallic implants are being carried out, particularly orthopedic implants
   b. Clarifying the phenomenon of metal hypersensitivity will provide much needed guidance on the diagnosis and management of patients with suspected metal hypersensitivity, thus reducing morbidity and mortality
   c. Physicians may find themselves being exposed to possible medical malpractice lawsuits because of patients’ concerns about metal hypersensitivity
   d. All of the above

2. Which of the following best describes metal hypersensitivity reactions?
   a. Type I (immediate or anaphylactic)
   b. Type II (cytotoxic hypersensitivity)
   c. Type III (immune complex hypersensitivity)
   d. Type IV (cell-mediated or delayed-type hypersensitivity)

3. Dermal hypersensitivity is a common occurrence that can occur in up to ____ of the population.
   a. 5%
   b. 10%
   c. 15%
   d. 20%

4. Which of the following answers best reflect the different types of metallic implants that were discussed in the article?
   a. Orthopedic implants
   b. Intravascular devices
   c. Obstetrics-gynecology devices
   d. All of the above

5. Which of the following preimplantation tests do dermatologists currently favor?
   a. Lymphocyte transformation test
   b. Leukocyte migration inhibition test
   c. Patch testing
   d. Enzyme-linked immunosorbent assay for macrophage migration inhibitory factor

6. For which of the following implants is the evidence for metal hypersensitivity reactions causing postimplant morbidity clearest?
   a. A metal-on-metal hip device
   b. A titanium alloy knee device
   c. The Essure device
   d. Fixed stainless steel orthopedic plates/screws

7. If a patient believes that he/she is metal-allergic, is it always acceptable to proceed with implantation of a device containing that metal?
   a. Yes
   b. No
   c. Yes, as long as the surgeon believes it is the best option
   d. Yes, as long as the patient does not experience postoperative adverse effects

8. Which of the following is NOT an established diagnostic criterion for postimplantation metal hypersensitivity reactions?
   a. Eruption overlying the metal implant
   b. Complete recovery after removal of the offending implant
   c. Chronic postoperative pain
   d. Onset of chronic dermatitis weeks to months after implantation

9. Which of the following is true of preimplant metal testing?
   a. It is indicated for all patients
   b. It is completely irrelevant
   c. It is useful for a minority of patients with significant concerns about allergy
   d. It is only needed in the United States owing to legal concerns

10. Which of the following are causes of postoperative chronic anterior knee pain?
    a. Infection
    b. Patellar clunk syndrome
    c. Type IV hypersensitivity to methyl methacrylate
    d. All of the above