

Hypersensitivity Reactions to Implanted Metal Devices: Facts and Fictions

Instructions for obtaining 1.6 Continuing Medical Education Credits

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CME Items

- Why is the concern over metal hypersensitivity becoming increasingly important?
 - Over the years, more procedures involving metallic implants are being carried out, particularly orthopedic implants
 - 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
 - Physicians may find themselves being exposed to possible medical malpractice lawsuits because of patients' concerns about metal hypersensitivity
 - All of the above
- Which of the following best describes metal hypersensitivity reactions?
 - Type I (immediate or anaphylactic)
 - Type II (cytotoxic hypersensitivity)
 - Type III (immune complex hypersensitivity)
 - Type IV (cell-mediated or delayed-type hypersensitivity)
- Dermal hypersensitivity is a common occurrence that can occur in up to ____ of the population.
 - 5%
 - 10%
 - 15%
 - 20%
- Which of the following answers best reflect the different types of metallic implants that were discussed in the article?
 - Orthopedic implants
 - Intravascular devices
 - Obstetrics-gynecology devices
 - All of the above
- Which of the following preimplantation tests do dermatologists currently favor?
 - Lymphocyte transformation test
 - Leukocyte migration inhibition test
 - Patch testing
 - Enzyme-linked immunosorbent assay for macrophage migration inhibitory factor
- For which of the following implants is the evidence for metal hypersensitivity reactions causing postimplant morbidity clearest?
 - A metal-on-metal hip device
 - A titanium alloy knee device
 - The Essure device
 - Fixed stainless steel orthopedic plates/screws
- If a patient believes that he/she is metal-allergic, is it always acceptable to proceed with implantation of a device containing that metal?
 - Yes
 - No
 - Yes, as long as the surgeon believes it is the best option
 - Yes, as long as the patient does not experience postoperative adverse effects
- Which of the following is NOT an established diagnostic criterion for postimplantation metal hypersensitivity reactions?
 - Eruption overlying the metal implant
 - Complete recovery after removal of the offending implant
 - Chronic postoperative pain
 - Onset of chronic dermatitis weeks to months after implantation
- Which of the following is true of preimplant metal testing?
 - It is indicated for all patients
 - It is completely irrelevant
 - It is useful for a minority of patients with significant concerns about allergy
 - It is only needed in the United States owing to legal concerns
- Which of the following are causes of postoperative chronic anterior knee pain?
 - Infection
 - Patellar clunk syndrome
 - Type IV hypersensitivity to methyl methacrylate
 - All of the above