Abstract:

We developed a peripheral intravenous catheter introducer that can be used safely in the magnetic resonance (MR) environment, including that at 3.0-tesla. We evaluated introducers with stainless steel (SUS 316L) and nickel-chromium-based (inconel 600) needles as well as a 20-gauge peripheral intravenous catheter introducer with SUS 304 needle for MR safety. From an MR safety standpoint, the SUS 304 should not be selected, and though inconel 600 is the preferred material, the SUS 316L introducer may be more practical with some modifications.