Abstract:

Introduction: The PowerFlow implantable apheresis intravenous port is a venous access device for therapeutic apheresis procedures. In this case review article, we identify key similarities and differences between apheresis PowerFlow ports and traditional ports. We also list strategies that emergency departments can implement to aid in correct port identification.

Methods: Using a case review format, we describe the clinical presentation of a 33-year-old female with neuromyelitis optica who was evaluated in the emergency department for an acute exacerbation. She had a history of outpatient apheresis procedures that made use of bilateral PowerFlow ports. Mistaken for a conventional port, the right PowerFlow port was accessed with a Huber needle rather than the appropriate catheter-over-needle device. On infusion of intravenous fluids, the patient experienced pain and swelling. Ultimately, the port malfunctioned and was eventually replaced.

Results: A subsequent root cause analysis identified opportunities for education and aids to improve port identification. To this end, strategies were implemented to appropriately identify the PowerFlow port using at least 2 of the following methods: (1) look in the patient’s chart for record of an implantable apheresis intravenous port; (2) check the port identification card, bracelet, or keychain issued at insertion; (3) palpate the port to look for the rounded top and hollow concave entry point; and (4) use x-ray or fluoroscopy to identify radiopaque port markers.

Conclusion: When a patient with a history of apheresis procedures presents with an implanted port, steps should be taken to ensure correct identification and access.

Reference: