



Complications of Port-A-Caths in Children with Hematologic/Oncologic Diseases

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Dear Editor:

We have read with keen interest the article titled, “Usefulness of percutaneous puncture in insertion of totally implantable venous access devices in pediatric patients” by Choi et al. [1] published in the September 2017 issue of *Vascular Specialist International*. We congratulate the authors for extensive research and we would like to share our experience with Port-A-Caths (PACs) in children with hematologic/oncologic diseases.

PACs are commonly used in children who require long-term central venous access for medications or nutrition [1]. Although these devices are extremely necessary, they pose a serious risk of complications including infection,

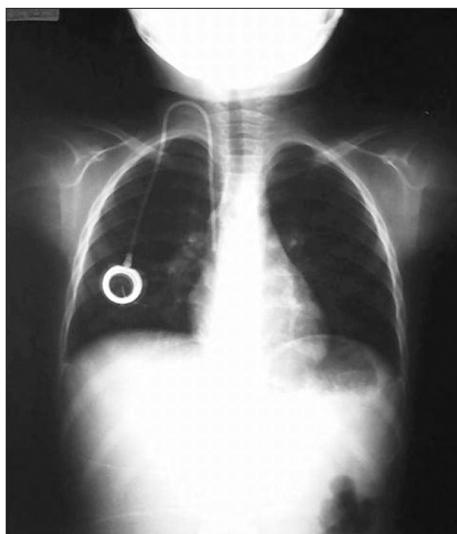


Fig. 1. Port-A-Caths placed in the right jugular vein.

thrombosis, and mechanical occlusions [2-4]. Over 8 years period (January 2008–December 2015), we managed 55 children with malignant hematologic disorders who need a PAC placement for chemotherapeutic treatment. Thirty-four patients (61.8%) were male and 21 patients (38.2%) were female. Mean age was 5 years (range, 1–16 years). Fifty patients (90.9%) had acute lymphocytic leukemia, four patients (7.3%) had lymphoblastic lymphoma, and one patient (1.8%) had acute myeloid leukemia. The most common site of insertion was the right internal jugular vein (94.5%) followed by the left internal jugular vein (3.6%) and the right subclavian vein (1.8%) (Fig. 1). All ports were placed under physician-controlled fluoroscopic guidance. Sixteen patients (29.1%) had postoperative complications including infection (n=10), malfunction (n=3), occlusion (n=2), and fracture (n=1). The management of these complications required the removal of the PAC in 8 cases (50.0%) (Table 1). The average duration over which the PAC remained in place was 18 months (range, 4–48 months).

The total complication rate in our series was 29.1%, which is comparable to other reported rates of up to 31.0%

Table 1. Postoperative outcomes

Complication	Total number of patient	Antibiotic therapy	PAC removed	PAC repaired
Infection	10	8	4	0
Malfunction	3	0	2	1
Occlusion	2	0	1	1
Fracture	1	0	1	0

PAC, Port-A-Cath.

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[5]. Therefore, there is a need to reduce the catheter related complications by providing sufficient information to patients and nurses, preventing direct or indirect trauma to the chest, strict adherence to aseptic practices in the operating room, and proper anticoagulation before and after device usage. Appropriate follow-up should be made after implantation for the early recognition of complications.

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