Central Venous Access Devices in bleeding disorders in children: experience in Argentina centres

Martinez M, Sliba G, Vides Herrera MS, Morell D

Hospital de Niños Sor Maria Ludovica-La Plata, Hospital Materno Infantil Dr Tetamanti-Mar del Plata; Hospital de niños Eva Perón- Catamarca; Fundación de Hemofilia- Córdoba

INTRODUCTION and OBJECTIVES

Central venous access devices (CVAD) is required to facilitate venous access in children with bleeding disorders especially in severe haemophilia A to prophylaxis or immune tolerance treatments, both of them involving frequent venipunctures. CVAD may have complications such as infection, thrombosis or blockage. The aim of the study is to describe our experience with use of CVAD in patients with bleeding disorders in 4 Argentina centres.

METHODS

Retrospective review of paediatric patients with bleeding disorders, in which cases CVAD was used, observed at 4 hospitals in Argentina, for a period of five years (June 2009 to June 2015)
The following data were collected : diagnosis, age at the date of CVAD placement, indication for catheter placement, complications, date of removal.
Insertion of the implantable device were placed in right subclavian vein in 4 patient and left subclavian vein in 3 pts.

RESULTS

Pt N°	Diagnosis	CVAD indication	Age at placement (Months)	Total CVAD days	Complication
1	Deficit factor VIII	ITI	18	1365	
2	Defict Factor VIII	ITI	20	2675	
3	Deficit Factor VIII	ITI	30	153	
4	Deficit Factor VIII	ITI	58	1786	Infection
5	Deficit Factor VIII	ITI	21	1245	Infection
6	Deficit Factor VIII	ITI	20	182	Mechanical
7	Deficit Factor II	Prophylaxis	5	1335	Infection

8 CVAD were placed in 7 patients with Haemophilia A (6) and Factor II deficit (1). Insertion of tunnel fully implantable (such as Port-a-Cath) were used in all children. Poor venous access was the main cause for the decision to place central venous catheter. The median age of the patient at the time of VAD insertion was 20 months (range 5-58 m). The primary indication for the catheter insertion was the presence of inhibitors and to start immune tolerance (6pts) the other patient had poor venous access and needed prophylaxis treatment for intracranial haemorrhage . The management of CVAD at home was performed in 3 patients after parents or nurses training. The catheters were used at median of 3 times per week. The median life spam of CVAD was 1335 days, equivalent to 3.7 years (range153-2675 days). The median days punctures were 765 days (range 78-1245 d).
There were 7 complications: 1 patient presented haemothorax after placement. 3 patient with local haematoma after the first infusions and 3 catheter related infections (all for Staphylococcus aureus). Infection was the cause associated with catheter removal in all patients. One had been retired for malfunction device, after successful ITT. There were no cases of thrombosis.

CONCLUSIONS

The use of central venous access device are useful in young children especially those who require long term venous access. We observed a favourable long-term during
However catheter-related infection remain a major risk to optimal use of CVAD.
Ongoing surveillance for infection rates is important to provide an up-to-date assessment of risk associated with CVAD use in this population.

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