VASCULAR ACCESS BLEEDING SURGERY IN A PEDIATRIC UNIVERSITY HOSPITAL

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Background:

- The cannulation and vascular access in the child is essential.
- It presents greater difficulty in the infant and young children, requiring multiple attempts.
- At risk of massive hemorrhage, larger gauges are required which further complicates the process.

Method:

- A description of the clinical practice of the peripheral and central vascular accesses that is more adequate for surgeries with risk of massive hemorrhage.
- Analyzing the most suitable gauges, types of catheters and technique, as it is done in our institution.
- Including limit situations, such as liver transplantation, where veins that drain into the inferior vena cava should not be used.

Discussion:

- Literature concerning catheterization of vascular access in children refers to situations in which only maintenance fluid is required.
- Both access and caliber should be adapted to:
 - ✓ patient's age
 - ✓ type of surgery
 - ✓ clinical situation

AGE	LITERATURE	LA PAZ UNIVERSITY HOSPITAL	
	CENTRAL LINE Caliber	MASSIVE HEMORRHAGE: CENTRAL LINE Caliber	MASSIVE HEMORRHAGE: Introductor Sheath Caliber/Length
PRETERM	3 Fr	4 Fr	3 Fr / 4 cm
NEONATO AND INFANT	4-4,5 Fr	4,5-5 Fr	4-5 Fr / 5,5 cm
SCHOOL	4,5-5,5 Fr	5,5-7-8 Fr	6 Fr / 5,5-8,5 cm
PRESCHOOL	5,5-6 Fr	7-8 Fr	7 Fr / 7-12 cm
TEEN	7 Fr	≥ 8 Fr	≥ 8 Fr / 11-12 cm

- In infants with difficult canalization: the saphenous vein and the external jugular vein are useful as peripheral access.
- For the central compartment, ultrasound-guided technique is of choice.
- For situations with significant bleeding, the right internal jugular vein is the most frequently used in our center.
- In situations of extreme urgency it is important to not forget the intraosseous access.

Conclusions:

- ❖ The vascular canalization in pediatrics requires a greater learning curve than in the adult, requiring knowledge of the technique and the appropriate material.
- ❖ The case of potential or actual situations of massive hemorrhage requires considering specific implications.