

## IS THERE AN ADDED VALUE CONTRIBUTION OF BIOLOGICAL GLUE IN SURGERY OF CYANOTIC CONGENITAL HEART DISEASES?

CP-229

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### Background

Biological glues are indicated in surgery to improve hemostasis when conventional techniques such as compression, sutures or electrocoagulation are insufficient. Indications of biological glues are reducing bleeding occurring after surgery, including particular contexts.

### Purpose

Through this work, we evaluated the impact of using biological glue in surgical procedures for cyanotic congenital heart diseases on the cost of pharmaceuticals, postoperative intensive care, volume of postoperative bleeding and number of bags of blood and blood derivatives transfused.

### Material and methods

A study of patient records who underwent surgery to treat a cyanotic congenital heart disease (tetralogy of Fallot, pulmonary atresia, transposition of the great arteries) was made between 2010 and 2014. All patients in whom the surgeon used biological glue were followed since the introduction of the glue to the hospital in 2012.

Other patient records were randomly selected; they represent those treated by surgery for their cyanotic congenital heart diseases before the introduction of the biological glue to the hospital. A Mann-Whitney analysis was used to define differences between the two groups of patients. Statistical analysis was performed using SPSS V.13.0

### Results

60 patient records were collected; the surgeon has used biological glue in 28 patients after the introduction of this product to hospital.

Parameters	Biological glue	Without biological glue	p
Intensive care unit stay (day)	2 [2 - 4]	3 [2 - 4.7]	0.168
Volume of bleeding (ml)	190 [119 - 270]	116 [72 - 207]	0.059
Number of blood bags	7 [5 - 10]	6 [5 - 8.7]	0.410

### Conclusion

The bleeding is an important factor of morbidity and mortality in surgical procedures. Bleeding can have serious consequences for patients at young age especially for the cyanotic congenital heart diseases. The contribution of biological glue is already confirmed in intraoperative hemostasis.

However, the obtained results show that in our studied series, the use of the biological glue didn't reduce the postoperative bleeding volume, didn't reduce the hospital stay in the ICU neither the number of bag for blood and blood derivatives transfused. These results can be confronted by other results from other series.

**Key words :** Biological glue, cyanotic congenital heart disease, hemostasis, volume of bleeding.

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