

# Review of: "Decontamination of Two Umbilical Cord Blood Grafts Prior to Autologous Administration"

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Potential competing interests: No potential competing interests to declare.

Review of the article "Decontamination of Two Umbilical Cord Blood Grafts Prior to Autologous Administration" by Stancioiu et al.

The article is enlightening and provides a new perspective on the decontamination of Umbilical Cord Blood Transplant patients. The study is well-intentioned, but the presentation could be more lucid.

I have the following suggestions and comments for clarification:

## **Major Corrections:**

### **Materials and Methods:**

- Since only two cases are demonstrated exact time of antibiotic exposure can be mentioned for better understanding.
- The time point when the viability test was done needs to be specified—done after 1hr/ 2hr/ before transfusion.
- How long the whole process of decryogenation till the finish of transfusion took place
- The mode of Delivery in both cases is not mentioned.
- One big question is how was the UCB with antibiotics stored and at what temperature till transfusion because, in regular practice, the transfusion of stem cells needs to be over within 1 hour of thawing.

### **Results:**

- It is mentioned in the results that one of the kids was previously treated twice with Autologous Bone Marrow Stem cells, but if UCB was available, then why Autologous Bone Marrow Stem Cells was used?
- Why were Bone Marrow Stem Cells used instead of Peripheral Blood Hematopoietic Stem Cells?
- Which Kid was transfused twice is not mentioned.
- CD34 count is given without any units
- The age of both patients was not mentioned.
- Did the UCB used in both cases belong to the patients or their siblings?
- In Patient A, UCB has stored 20 ml + 5 ml in two bags. But during adding antibiotics, it mentioned that it was done in 25ml of UCB. Why were both the bags pooled before adding antibiotics?
- The protocol of UCB collection, reduction, storage, thawing, antibiotic addition (conc. and time) with viability check (done at what time) should be mentioned in detail in the Methods section rather than partly in methods and partly in the

results section.

- What were the target CD34+ cells for both patients?

### **Discussion:**

If oral antibiotics were given before and continued after the UCB transfusion, then what is the point of decontamination? The authors specified that this process is helpful in healthy recipients who are not on antibiotics.

### **Figures:**

Figure 1 needs to be clarified, and the legends need more clarity. In figure 1a, the magnification needs to be mentioned.

### **Minor Corrections:**

- Stafilcoccus spelling needs correction in the 6th paragraph of the Introduction.
- In the last line of the Introduction, the reference needs to be correctly put
- Numbers like 40,000 and 10,000 are denoted as 40.000 and 10.000, respectively. It needs correction.
- Decimal having commas instead of points 4,5ml in the Results section.
- Units of TNC and CD34+ cells need to be mentioned
- TNCd full form should be added in Results Section