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# CTS Collaborative Transplant Study

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Newsletter 4:2004

November 1, 2004

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With this newsletter we are introducing a new one-page **summary of demographic transplant statistics for your center**. It allows a quick orientation as to the **completeness** of data reported, both with regard to initial transplant registrations and posttransplant follow up. Percentages of < 80 % indicate a need for examination and **update**. We will gladly assist you in any way possible. From this point forward, these summary statistics can be obtained at any time using the TaXi program.

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May I remind you that the upcoming deadline for both the **serum and DNA study** projects is

**November 22, 2004.**

Please be sure to notify us prior to shipping so that we can track the shipments from our side and avoid any delays in customs.

There has been renewed discussion about the requirement for ensuring compliance with **ethical and consent regulations** for these projects. Institutional regulations may vary from center to center and it is important that each participant obtains local permission as applicable. Journal editors are beginning to ask for written confirmation that consent was obtained. If you have not yet done so, please contact your **institutional review board** and obtain the appropriate approvals. The approval process may be facilitated by explaining that the samples are not obtained separately for the purpose of our studies, but instead surplus material from routine clinical investigation is used, which otherwise would be discarded.

In addition, **general patient consent for the use of biological specimens and clinical data for scientific analysis** must be obtained. The most appropriate time for routinely obtaining patient consent is the point of **admission to your program** (time of placement of a patient on the transplant waiting list). I am aware that this is already established routinely at most university clinics, but please verify and ensure that the procedures at your center are being followed correctly. Thank you for your cooperation.

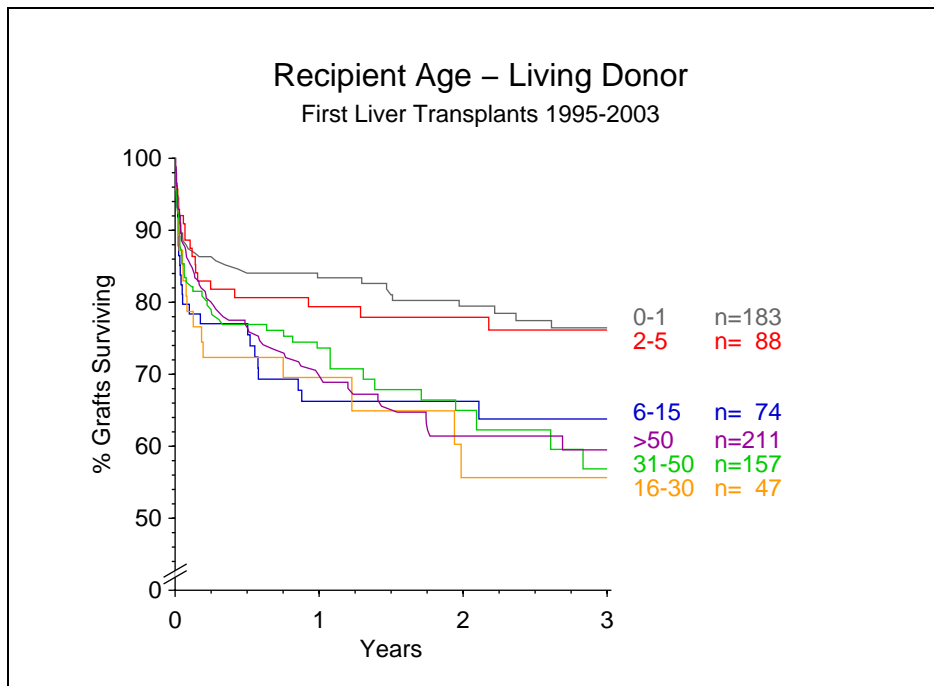
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We would like to present you with the CTS data on potential influence of **“graft size” on liver transplant** outcome.

Figure 1 shows the results of liver transplantation from **living donors** according to **recipient age**. Young children clearly have the best outcome. One could speculate that the immature

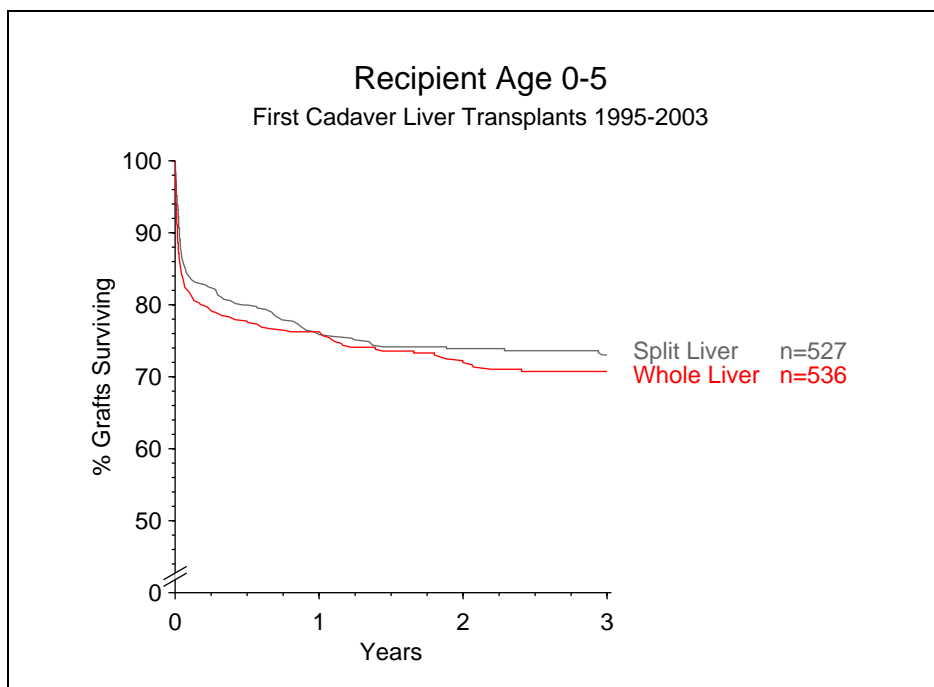
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immune system of infants might be responsible for this effect, or, alternatively, that a partial liver graft from a living donor may be of sufficient size only if the recipient is small (size match).



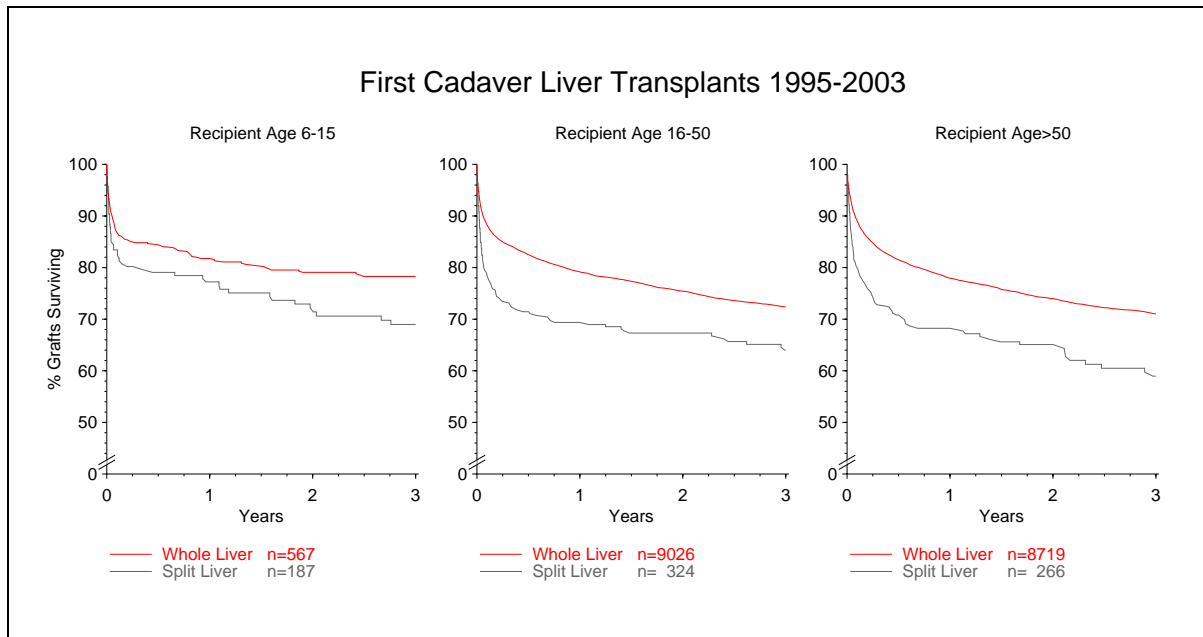
**Figure 1**

To further examine this question, we analyzed the results of “split” liver grafts from cadaver donors according to recipient age. As shown in Figure 2, split transplants into children aged 0-5 perform equally well as “whole liver” grafts (obtained from pediatric donors).



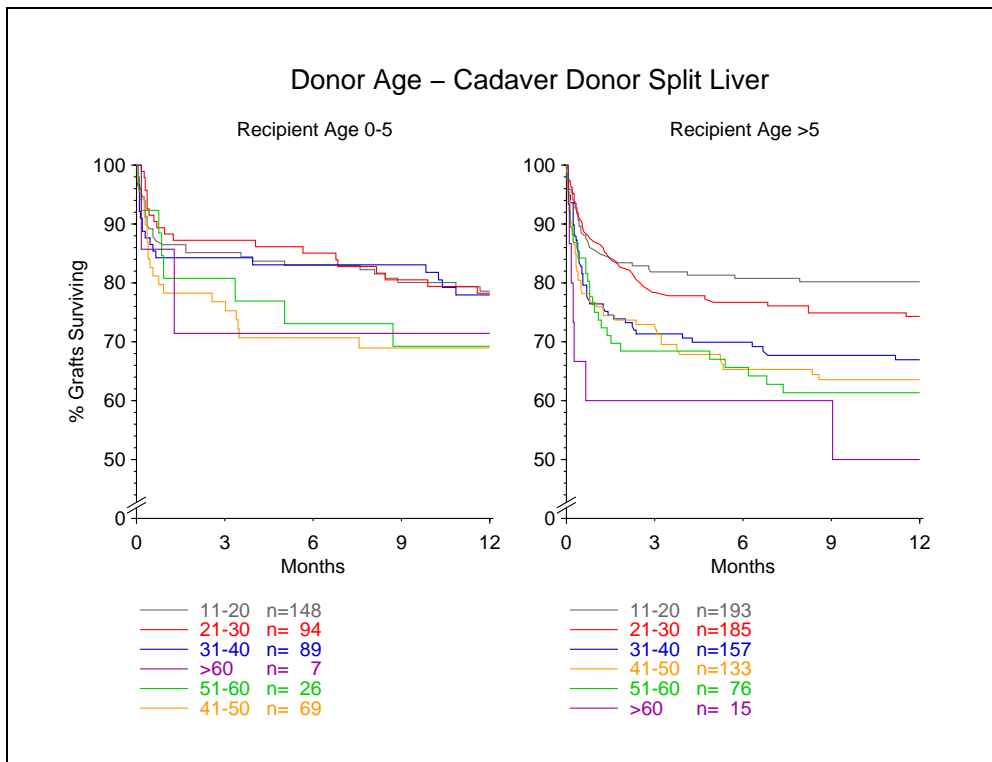
**Figure 2**

However, in older children and adults, split grafts show a **significantly worse** outcome than whole liver transplants (Figure 3).



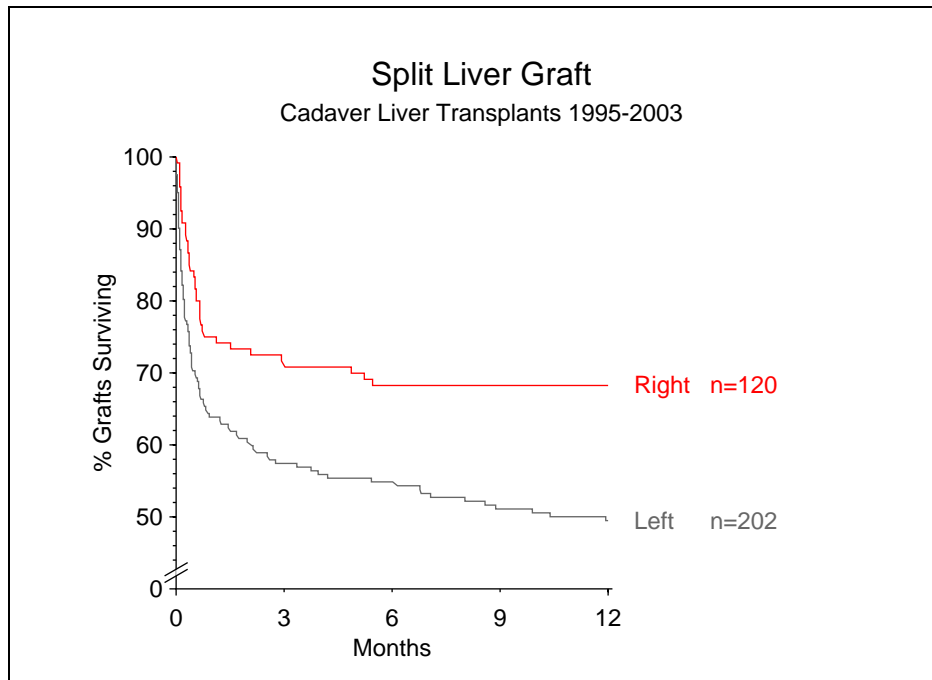
**Figure 3**

Inclusion of donor age as a variable in the analysis reveals that **biological quality as a function of age** may be an additional factor influencing transplant outcome. Whereas “split” liver grafts from donors up to the age of 40 perform exceedingly well in small children, there is an **age-related drop-off** in older children and adults, starting as early as with the age group 21-30 (Figure 4).



**Figure 4**

Further indirect support for the notion that size might be an important factor is derived from a comparison of right and left “split” liver transplants (Figure 5). The larger **right liver grafts** outperformed left grafts. Due to the limited number of transplants available for analysis, it was not possible to obtain statistically meaningful results when donor and recipient age were considered in addition.



**Figure 5**

While these data are not conclusive, they suggest that the **size** of a partial liver graft in relation to recipient size is an important factor. Further studies will be necessary to clearly dissect the competing influences of **size and age**. With your continued support, we hope to obtain data on sufficiently large patient numbers for clarification of these issues. We welcome any suggestions you may have for improving the analysis.

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Coinciding with the next newsletter, due to appear on February 1, 2005, we will also perform a **complete update** of all CTS website statistics. I therefore appeal to you to provide your update on **clinical follow up by January 15, at the latest**. This will enable us to include your update information in the general statistics as well as in your center-specific analysis profile.

Thank you very much for your support.

Sincerely yours,

Gerhard Opelz