
CTS Collaborative Transplant Study

Newsletter 2:2003

May 1, 2003

The announcement of the new TaXi software feature for presentation of **center demographics** found a very positive response. Apparently, many centers felt that this feature filled an important gap in functionality. We also received suggestions which will help us to further improve TaXi. The CTS software development is an **ongoing process** and you can expect new additions in the future.

You will be pleased to learn that, in addition to working on the TaXi program, we are in an **advanced stage** of development for an **expanded** version of the **CTS website analysis** function. The popular analysis of individual center results will become much **more flexible** and thereby meet the declared need of many users. This new program extension for center analysis via the website will become **functional later this year**.

About 6 years ago we began to request information on **posttransplant serum cholesterol**. A first data analysis shows quite interesting results:

Graft survival of cadaver kidney transplants in relation to serum cholesterol at year 1 is illustrated in Figure 1.

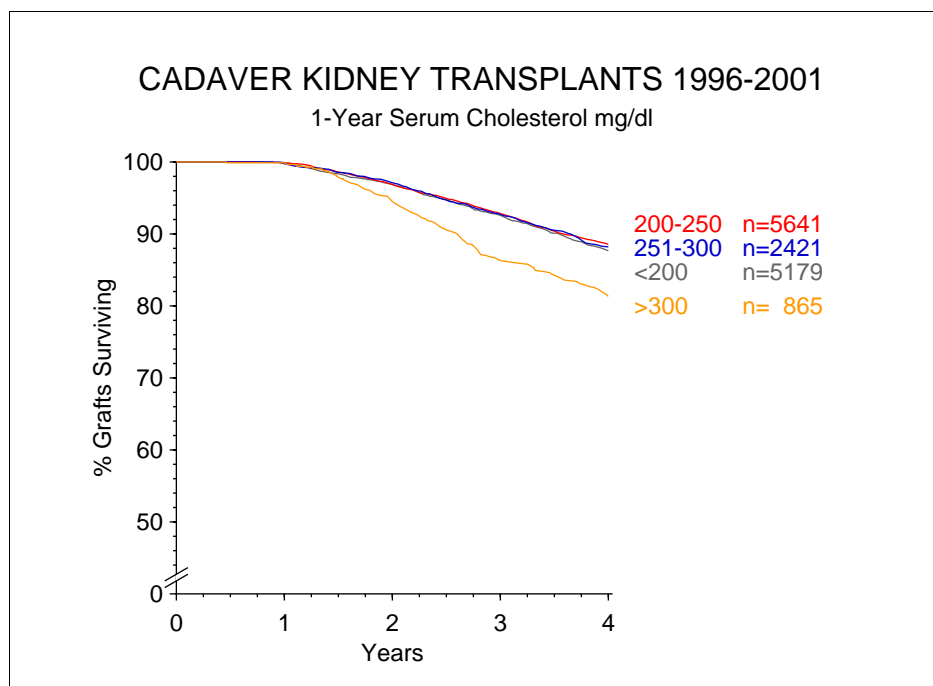


Figure 1

It is apparent that, while a serum cholesterol value of up to 300 mg/dl had no noticeable effect, patients with **>300 mg/dl** showed a clearly **inferior success rate**.

About one-half of this effect was due to a higher rate of **patient death** in recipients with **>300mg/dl** (Figure 2).

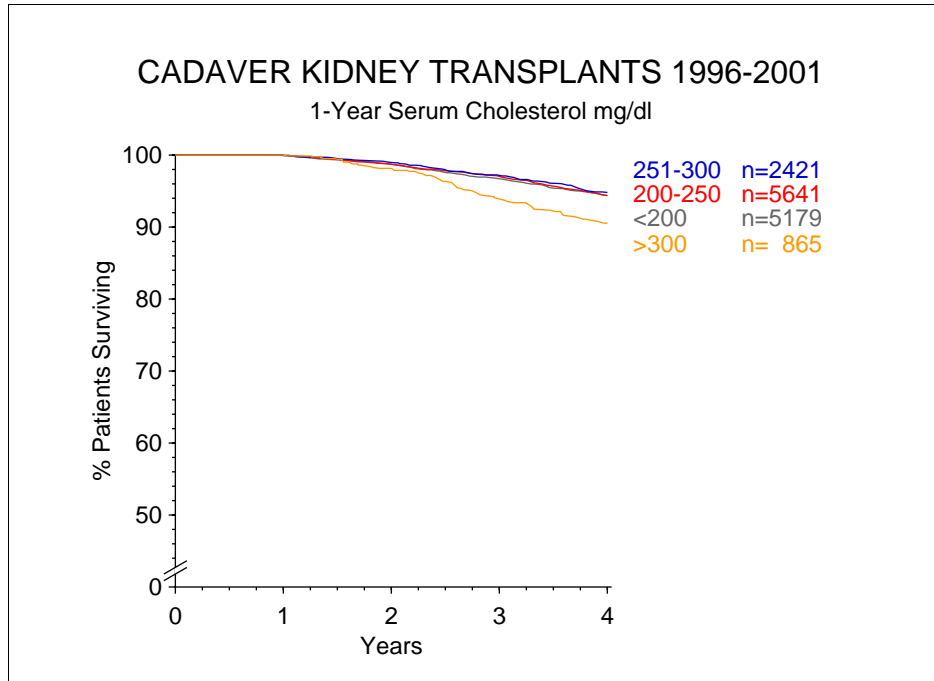


Figure 2

The remaining graft losses, however, were **unrelated to patient death**, as shown in an analysis in which patient death was censored (Figure 3).

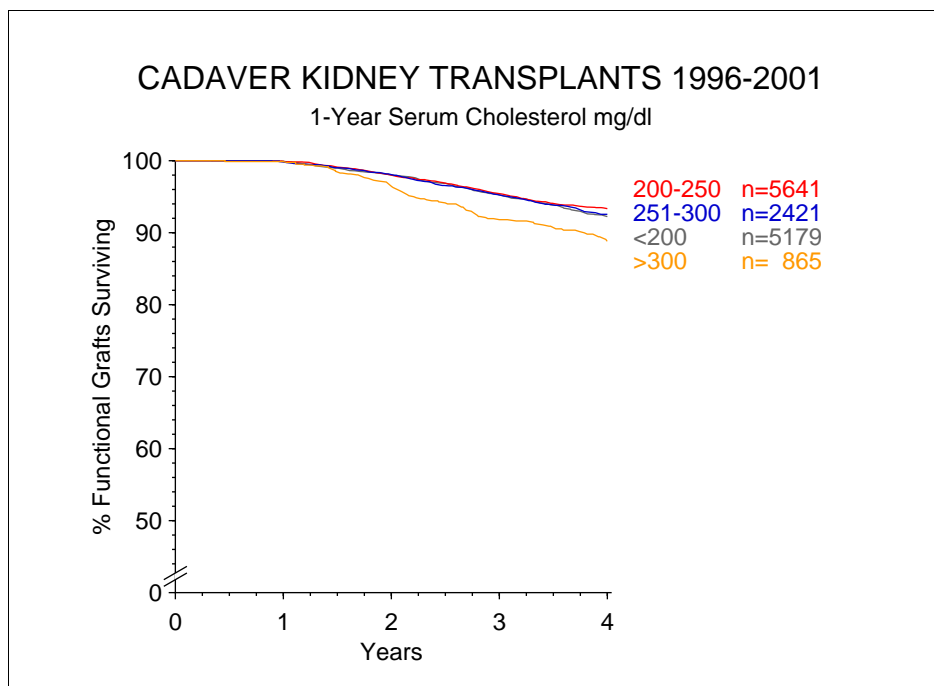


Figure 3

Figure 4 shows a rather convincing association of serum cholesterol with **body mass index** (BMI). Other conditions associated with **obesity** therefore may additionally have played a role.

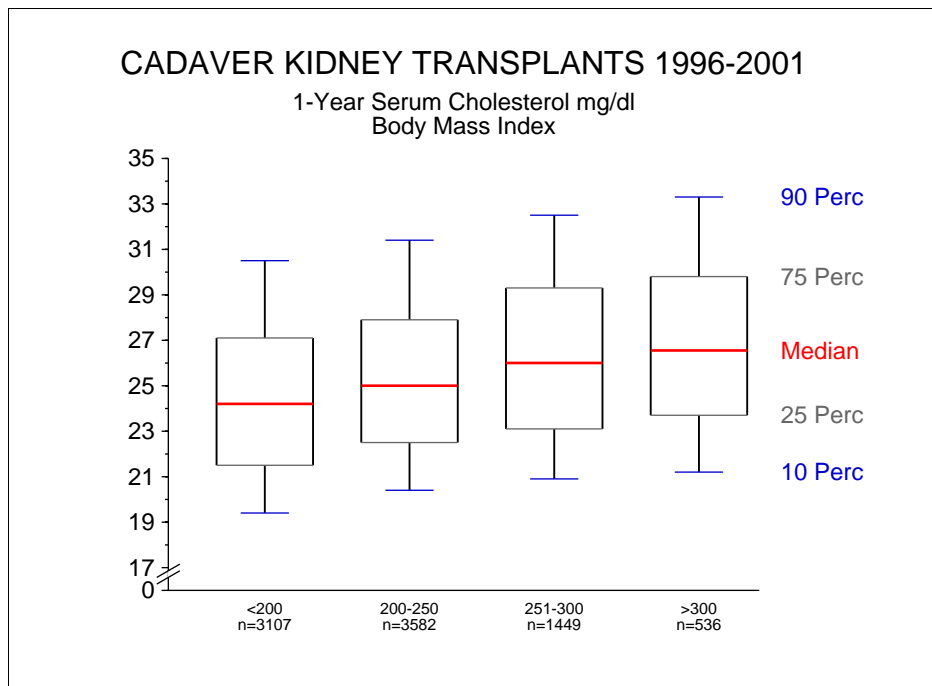


Figure 4

When the subgroup of patients who were **treated with statins** were analyzed, a lower graft success rate was found in patients who had a serum cholesterol of >300 mg/dl in spite of statin treatment (Figure 5).

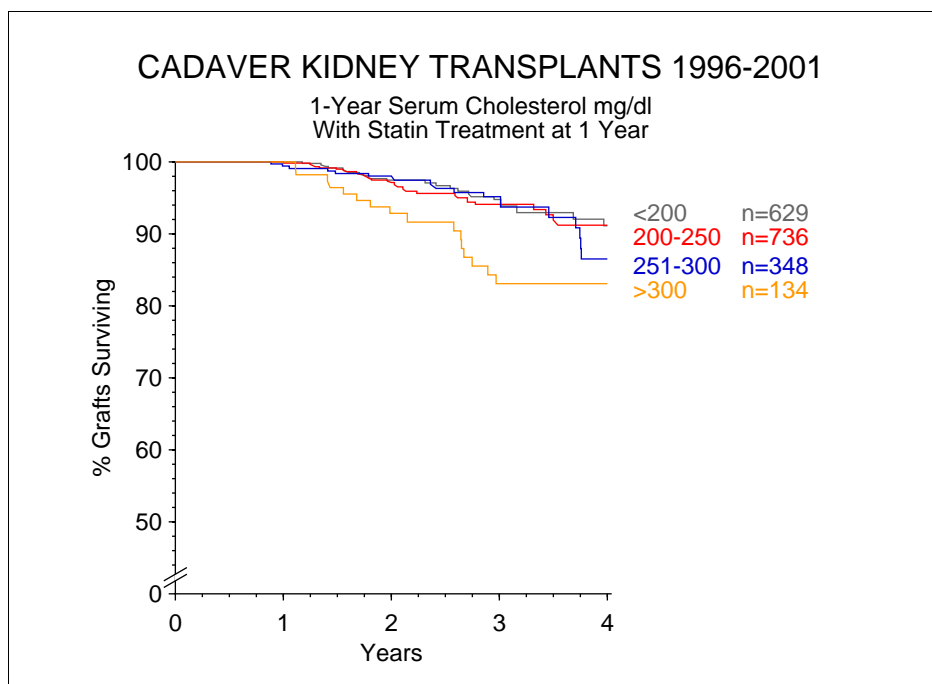


Figure 5

Statin treatment *per se* did **not** affect graft survival as illustrated in Figure 6.

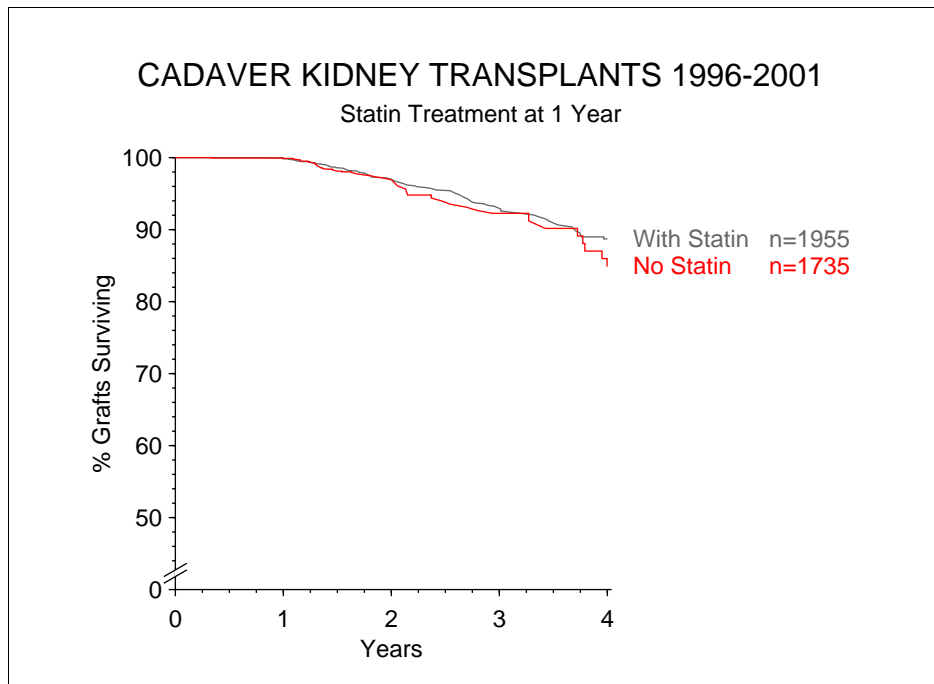
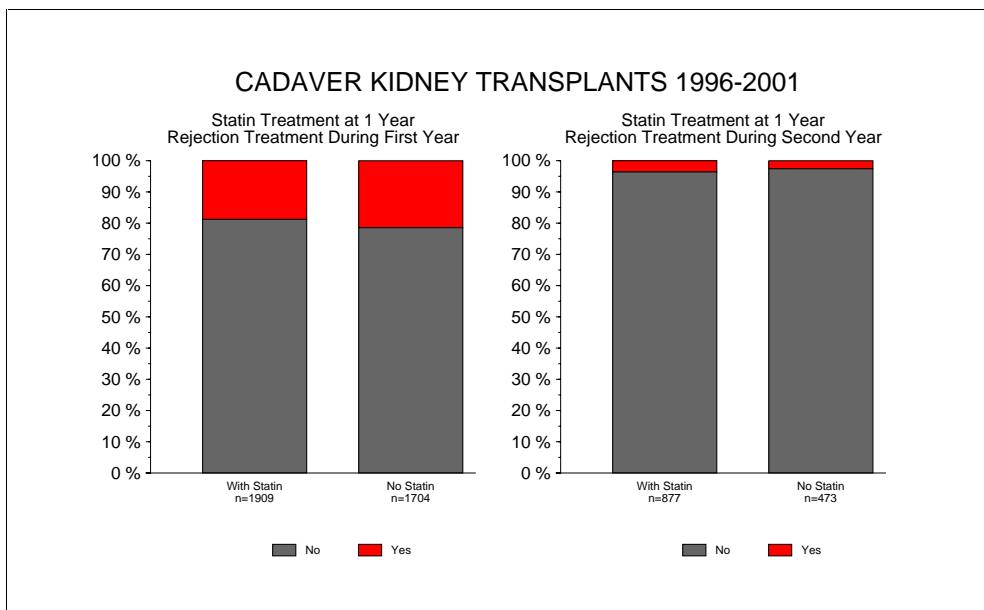


Figure 6

An analysis of **rejection treatment** during the first or second year posttransplant did **not** show a convincing influence of statin treatment on the frequency of rejection treatment, either prior or subsequent to the year 1 anniversary (Figures 7 and 8).



Figures 7 and 8

A parallel analysis of **heart transplants** shows somewhat different results in that a trend for lower survival in the >300 mg/dl group is apparent only during the second posttransplant year; subsequently, these patients did quite well. One should not overinterpret this result, however, since the patient number was relatively small. Recipients with a 1-year serum cholesterol of 251-300 showed a trend towards impaired survival (Figure 9).

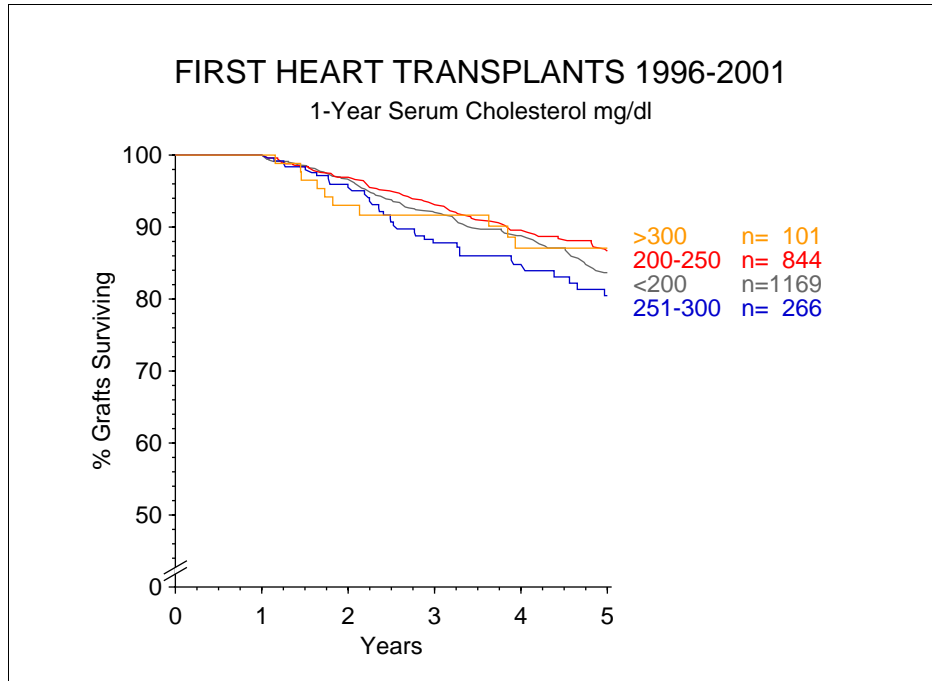


Figure 9

As in kidney transplant recipients, there was a strong correlation between cholesterol and BMI (Figure 10).

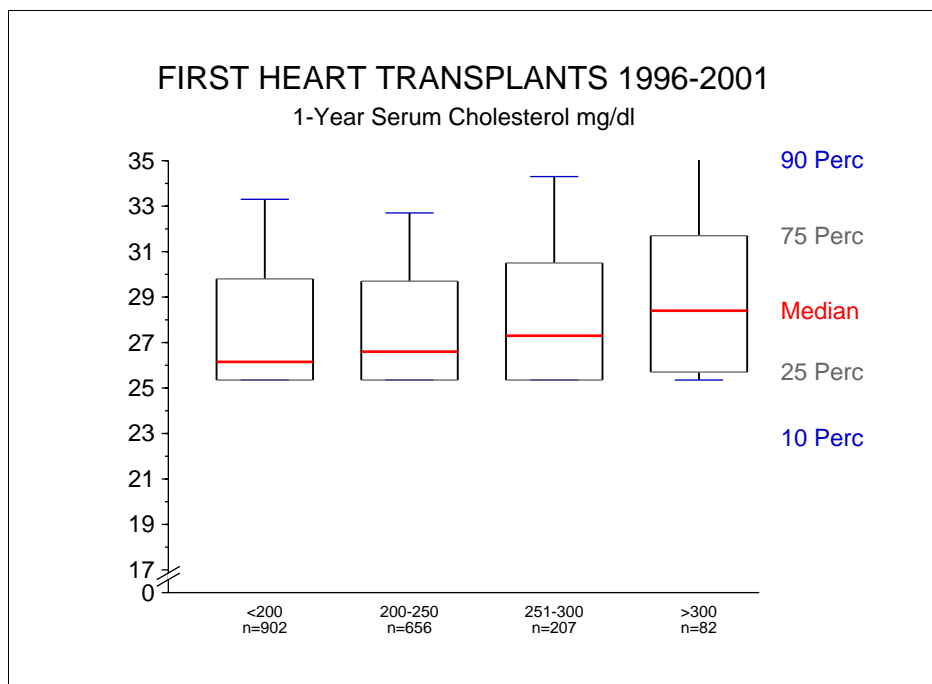


Figure 10

Patients who received **statin treatment** at year 1 showed a trend similar to that of the total recipient population with respect to the influence of high cholesterol on subsequent survival (Figure 11).

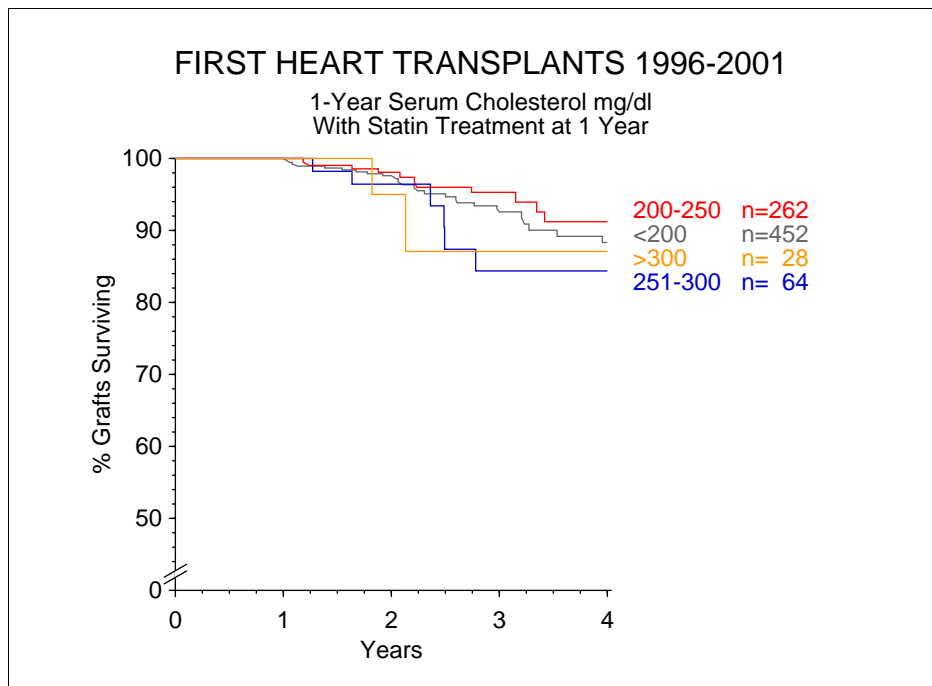


Figure 11

The analysis of **statin treatment *per se*** on graft survival, or on the necessity of rejection treatment during the first or second posttransplant year, yielded results similar to those obtained in kidney transplants (Figures 12-14).

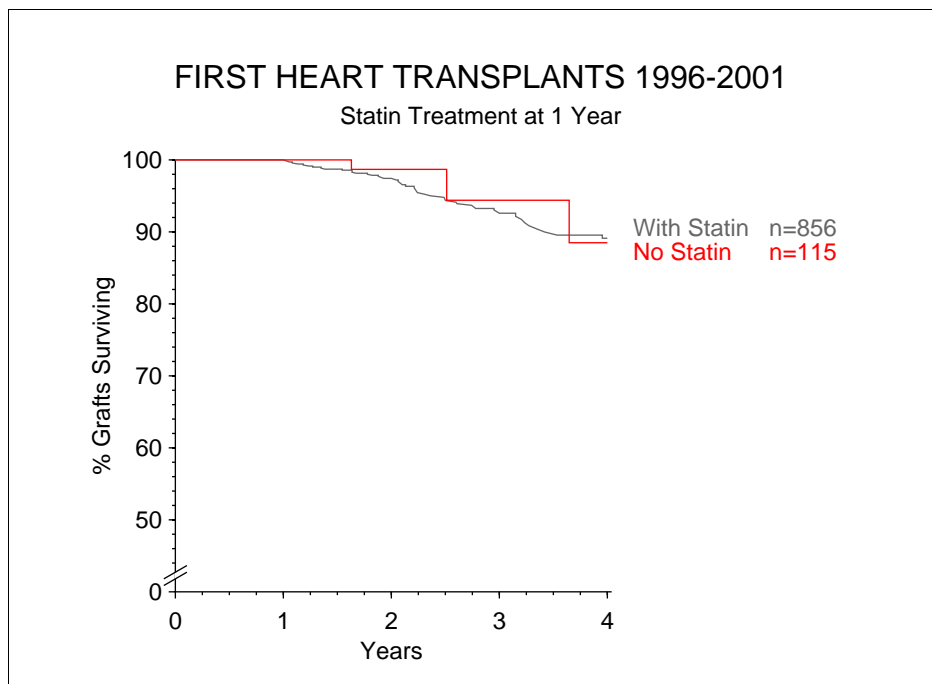


Figure 12

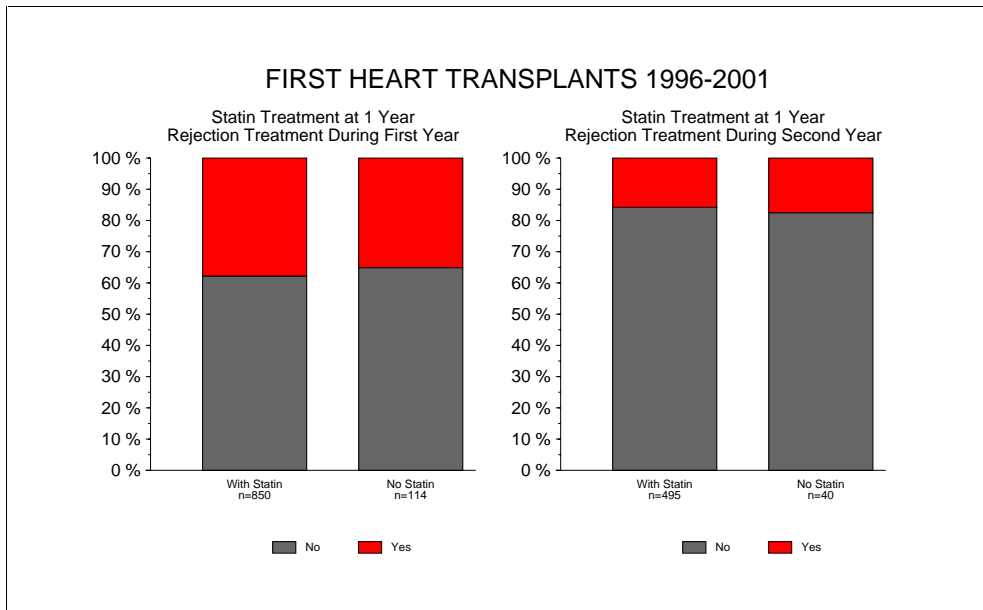


Figure 13 and 14

Whereas, in contrast to kidney recipients, the **vast majority** of heart recipients received statin treatment, a **convincing effect** of statin treatment on graft survival during the first 4 years or on the frequency of rejection treatment during the first or second posttransplant year could **not be demonstrated**.

Perhaps the relatively short follow up in the current analysis explains why an advantage for statin treatment could not be convincingly shown. Among heart transplant recipients, the number of patients not receiving statins was small and the results must be interpreted with caution. It will therefore be interesting to reanalyze these data when information on more patients with longer follow up is available. **Your continued support** with completing the colored follow up questionnaires thus remains **very important**.

Please remember that the next **shipping date** for the serum and DNA studies is

May 20, 2003.

Thank you very much for your continued support of the international transplant study.

Sincerely yours,

Gerhard Opelz