Endoscopic laser surgery after therapeutic amniocentesis in the treatment of severe twin—twin transfusion syndrome

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The twin—twin transfusion syndrome (TTTS) is a congenital pathology affecting 15% of monochorionic twin pregnancies [1]. The treatment modes most frequently applied at present include serial amnioreduction [2] and selective endoscopic laser coagulation of anastomoses (ELCA) [3]. The only prospective, randomized, controlled study that has been performed to compare the effectiveness of these two treatment techniques for TTTS is the EUROFETUS multicenter trial [4], in which it was concluded that endoscopic laser coagulation of anastomoses is a more effective first-line treatment than serial amnioreduction for severe twin-to-twin transfusion syndrome diagnosed before 26 weeks of gestation.

One of the criteria for exclusion from the EUROFETUS study was whether the fetuses had been subjected to any previous invasive treatment for the syndrome. It has been suggested that the performance of amnioreduction prior to laser surgery could worsen the results obtained by ELCA. Nevertheless, an important proportion of pregnant women who attend tertiary referral centers for ELCA treatment of TTTS had previously been treated unsuccessfully, on one or more occasions, by amnioreduction. The objective of the present study was to determine whether previous amnioreduction treatment has any effect on the results of ELCA therapy.

An analysis was made of the results obtained from a sample of 16 pregnant women treated for TTTS by ELCA at a single tertiary referral center between November 2002 and March 2005 (Table 1).
All treatment procedures were approved by the Hospital Ethics Committee, and all patients signed a consent form.

The women were divided into two groups, those who had and those who had not received therapeutic attention prior to laser surgery. A descriptive statistical model was used to analyze the data obtained, based on proportions of overall survival and on that of at least one fetus.

Of the 16 pregnant women, 6 (37.5%) had been treated with amnioreduction before being referred to the hospital, while the remaining 10 (62.5%) had not received such prior treatment. The overall results for survival rates, both for the group of mothers who had been given prior amnioreduction (71.9% overall survival and 81.3% survival of at least 1 fetus) and for those who had not (65.0% overall survival and 80.0% survival of at least 1 fetus) are similar to those published for the EUROFETUS study (4).

Although the series was small for definitive conclusions to be drawn, no important differences were observed between the two groups studied.

### References