

Characteriscs of Unsuccessful Coagulation Cases in Fetoscopic Laser Photocoagulation for Twin-to-Twin Transfusion Syndrome



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Introduction

The purpose of this study was to investigate the characteristics of cases in which fetoscopic laser photocoagulation (FLP) was performed but not completed successfully.

Methods

We retrospectively reviewed FLP cases performed at Toho University Omori Medical Center from 2015 to 2024. Clinical data were retrospectively examined using medical records.

Results

Of 322 patients, three cases were not completed successfully.

Case	GA / Stage	Placental site	Findings / Reason	Outcome / Pathology
1	29 weeks / TTTS Stage III	Anterior	Most vessels shared; coagulation risked donor twin demise.	Cesarean for NRFS; placenta showed almost all vessels anastomotic.
2	26 weeks / TTTS Stage III	Posterior	Cords close, complex anastomoses; risk of both twins demise.	Cesarean 5d later for NRFS; placenta showed many anastomoses, cords close.
3	19 weeks / TTTS Stage II	Anterior	All vessels shared; coagulation risked both twins demise.	Termination at 20w; placenta showed almost all vessels anastomotic.

Conclusion

Of all 3 cases, preoperative ultrasound did not predict that coagulation could not be completed.
Data showing that 0.7% of cases cannot be completed surgically is valuable information for patients.