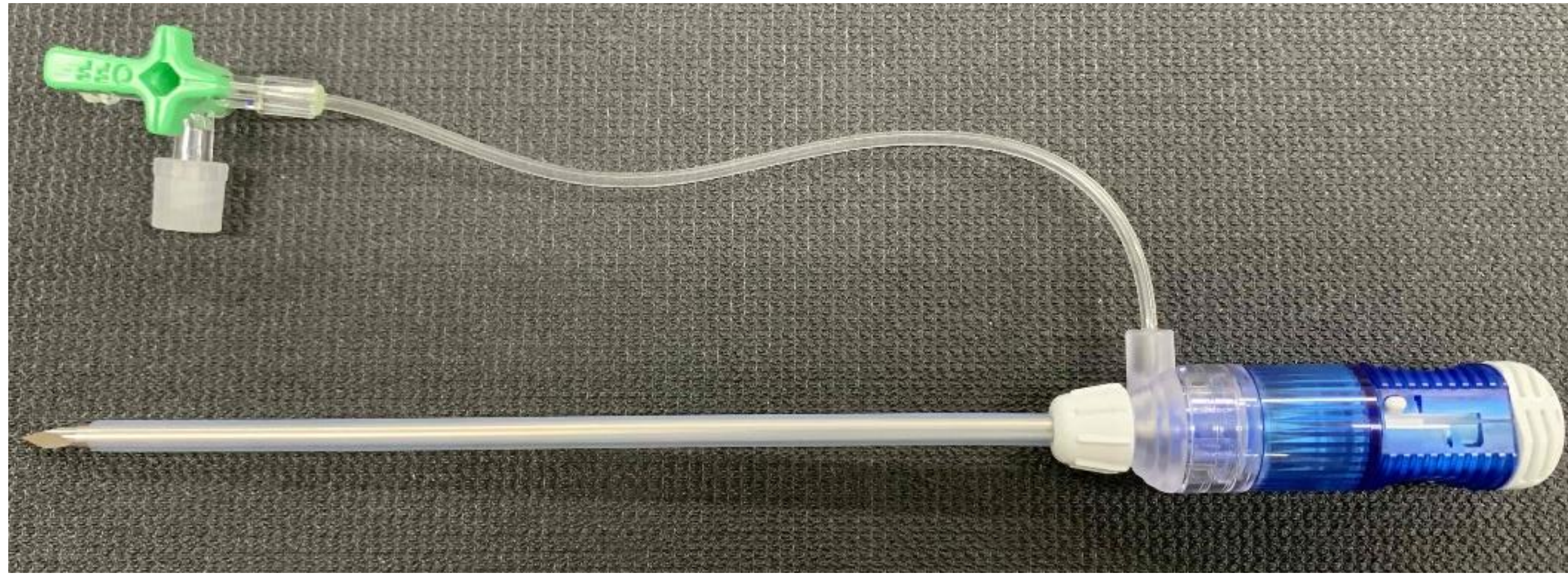


EP10.46 Experience with the use of a newly developed FLP Trocar for fetoscopic laser surgery.
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Introduction

We analyzed cases of fetoscopic laser photocoagulation (FLP) for compromised monochorionic twins using a newly developed FLP Trocar (Hakko Co., Ltd.) with a semi-transparent polyvinyl chloride sleeve and a trocar with a triangular pyramid-shaped tip. The control groups were the cases using the conventional trocar and sleeve.

Methods

We conducted a retrospective analysis of cases that underwent FLP between February 2024 and one year thereafter. We examined operative time, prevalence of premature rupture of membrane (PROM) immediately after surgery, and the surgeon's subjective experience during the procedure.

Results

The FLP trocar was used in 33 cases (26 cases of TTTS, 6 cases of sFGR, and 1 case of TAPS). The median operative time was 43 minutes (range: 26–88 minutes), compared to 44 minutes (range: 18–180 minutes) in the control group of 276 cases. PROM within one week postoperatively occurred in 3 cases (9.1%) in the FLP trocar group and in 30 cases (10.9%) in the control group.

Surgeons reported that there was minimal resistance during puncture; the sleeve did not deform due to laser heat; the semi-transparent sleeve allowed visualization of surrounding anastomotic vessels, especially in the case of anterior placenta, making the device easier to handle during the procedure. On the other hand, although the inner diameter was 4 mm, the outer diameter was 5 mm, and many surgeons expressed a preference for a thinner design.

Conclusion

The newly developed FLP Trocar was highly rated for its puncturability, heat resistance, and transparency.

Semi-transparent Sleeve



The surrounding area can be observed through the transparent trocar sleeve.

