Continuous Irrigation Technique (CIT) with fetoscopic laser surgery for dull and bloody amniotic fluid in TTTS.

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Objective:
To evaluate the efficacy of continuous irrigation technique (CIT) to improve visibility of dull and bloody amniotic fluid for fetoscopic laser surgery (FLS).

Methods:
• From 2008 to 2017
• FLS with CIT for 6 TTTS with severely discolored amniotic fluid
• Normal saline was continuously irrigated (10-20 mL/min)

Results:
• All 6 cases with CIT were successfully accomplished FLS without maternal and fetal complications.
• GA at FLS: 19wks (17-21 wks.), Time: 85min (35-107 min), Anterior placenta 4/6, Volume 442mL (110-2100mL).
• TTTS resolved all cases, GA at delivery 31wks (24-37 wks.)
• 75% of fetuses survived without double demise.
• 2/6 placenta showed residual anastomoses without symptom of TAPS and recurrent TTTS (a small thin anastomoses located at the placental margin, the other one diverged from velamentous cord insertion)

Conclusion:
Newly developed Continuous Irrigation Technique will enable us to perform fetoscopic laser surgery even for TTTS with severely dull and bloody amniotic fluid. Technical improvement may avoid residual anastomoses.