

4308491 (EP13.09).

Fetoscopic laser photocoagulation for twin anemia-polycythemia sequence

Department of Obstetrics and Gynecology, Toho University Omori Medical Center

F Sugo, M Takano, R Suzuki ,M Tachihara, T Mori, J Sakuma, S Nagasaki, M Nakata

- Introduction
- TAPS is complication specific to monochorionic (MC) twin pregnancies.
 - It is characterized by one twin developing anemia and the other polycythemia, without significant amniotic fluid imbalance.
 - Options: expectant management, preterm delivery, intrauterine transfusion (IUT), FLP, selective feticide.
 - No standardized management guidelines established.

- Purpose
- At our institution, FLP is carefully considered and performed for cases of TAPS stage ≥ 2 .
 - In this study, we reviewed the clinical information of 3 cases of spontaneous TAPS treated with FLP at our hospital.

- Results
- FLP was performed in three cases of TAPS stage ≥ 2 .
 - Postoperatively, TAPS improved and double survival was achieved in all cases.
 - To date, no neurological abnormalities have been observed in any of the three cases.

- Discussion
- The gestational age at FLP was comparable between TAPS and TTTS.
 - The operative time tended to be longer in TAPS than in TTTS.
 - However, all three TAPS cases resulted in double survival, suggesting that neonatal survival outcomes may be more favorable compared with TTTS.

case	TAPS Stage	FLP (GA)	Surgery time (min)	Delivery (GA)	Interval from FLP to delivery (day)	Outcome
1	2	19w4d	87	29w4d	70	Double survival
2	2	18w4d	39	27w1d	60	Double survival
3	4	22w2d	50	32w5d	73	Double survival
TTTS, n=205		20.9wks (15.9-29.0)	46 (20-180)	34.3wks (22.0-40.4)	89 (0-150)	No survival 8 (3.9%) At least one survival 40 (19.5%) Double survival 157 (76.7%)

Table 1. Summary of 3 cases of TAPS and comparison with 205 cases of TTTS treated with FLP at our institution (Dec 2015 – Sep 2024)

- Conclusion
- FLP is feasible treatment option for TAPS stage ≥ 2 and has been associated with favorable outcomes.
 - Further case accumulation is needed to:
 - Refine the indications for FLP in TAPS.
 - Evaluate treatment outcomes.
 - Establish standardized management protocols based on evidence.

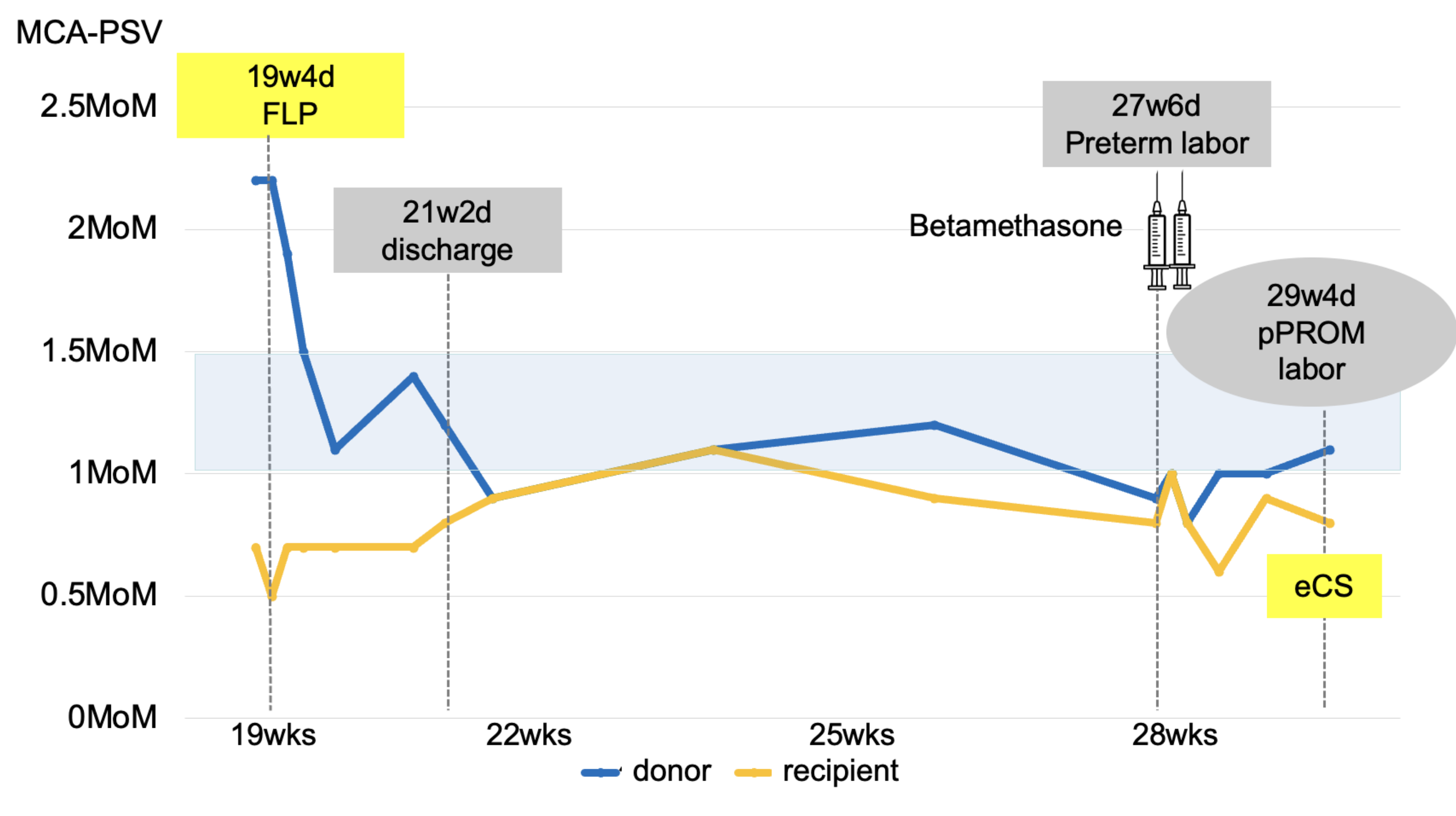


Figure 1. Clinical course of MCA-PSV in case 1

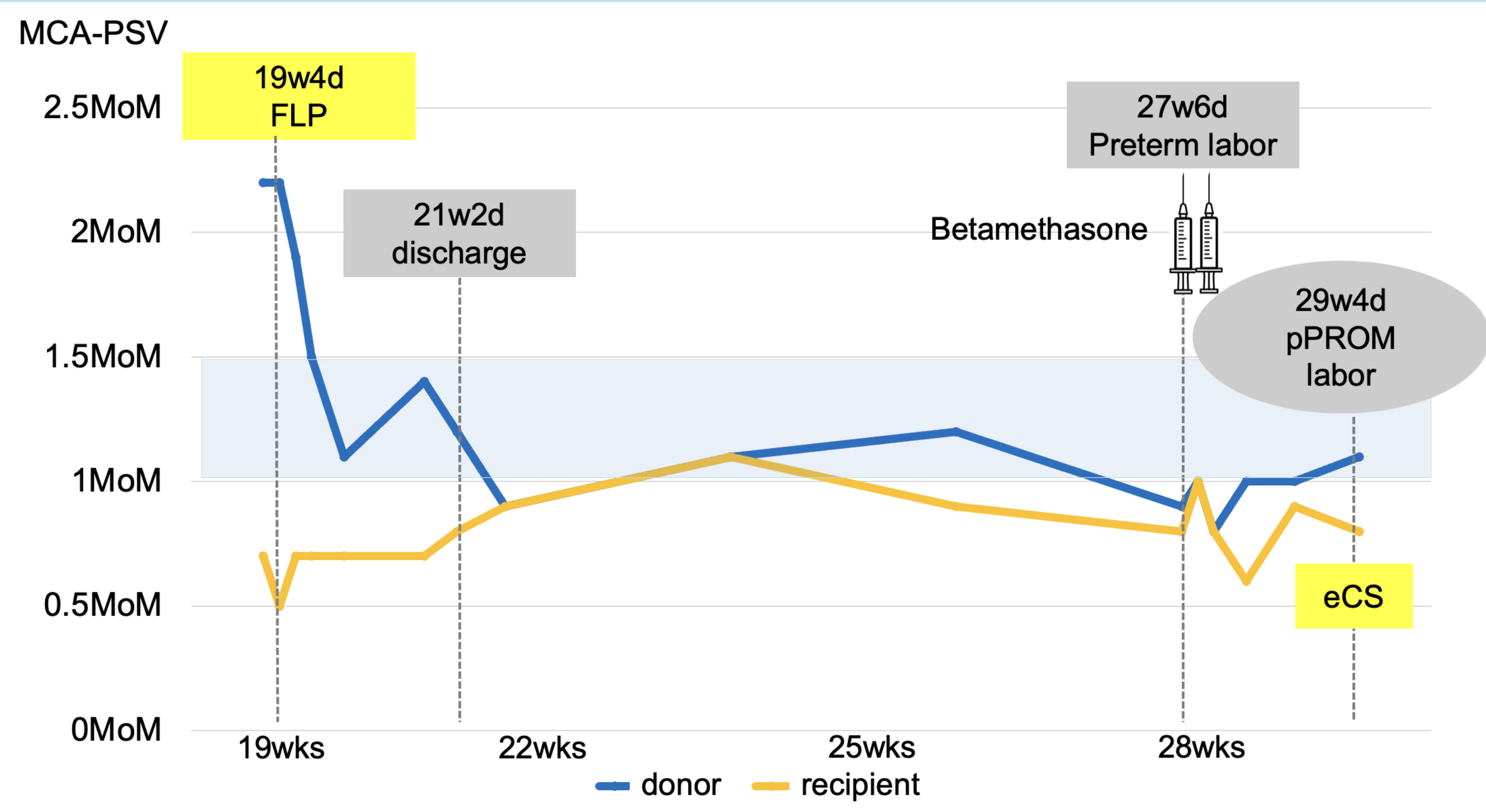


Figure 2. Clinical course of MCA-PSV in case 2

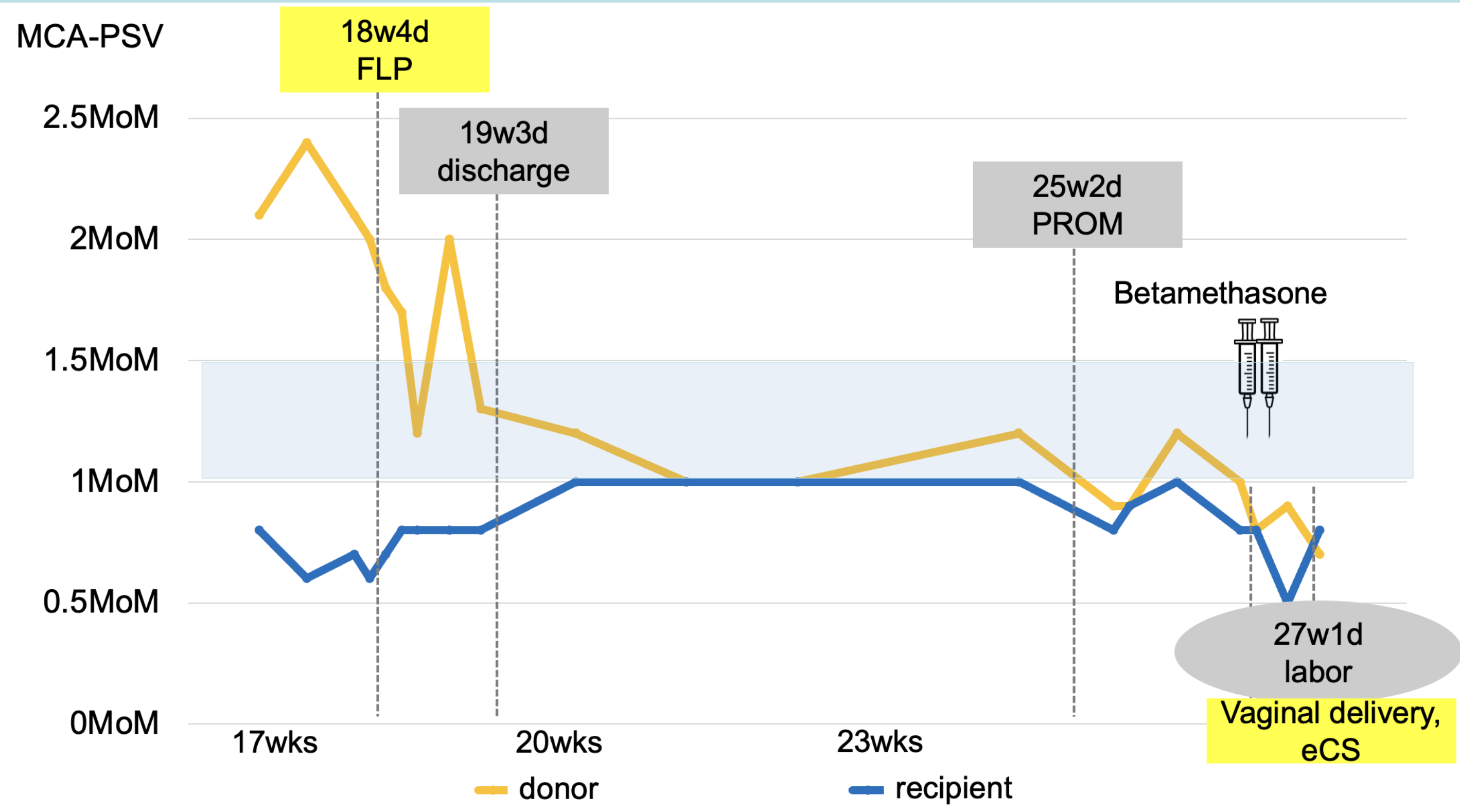


Figure 3. Clinical course of MCA-PSV in case 3