

EP05.135 Clinical significance of third-trimester fetal bowel dilatation: a surgically confirmed case series

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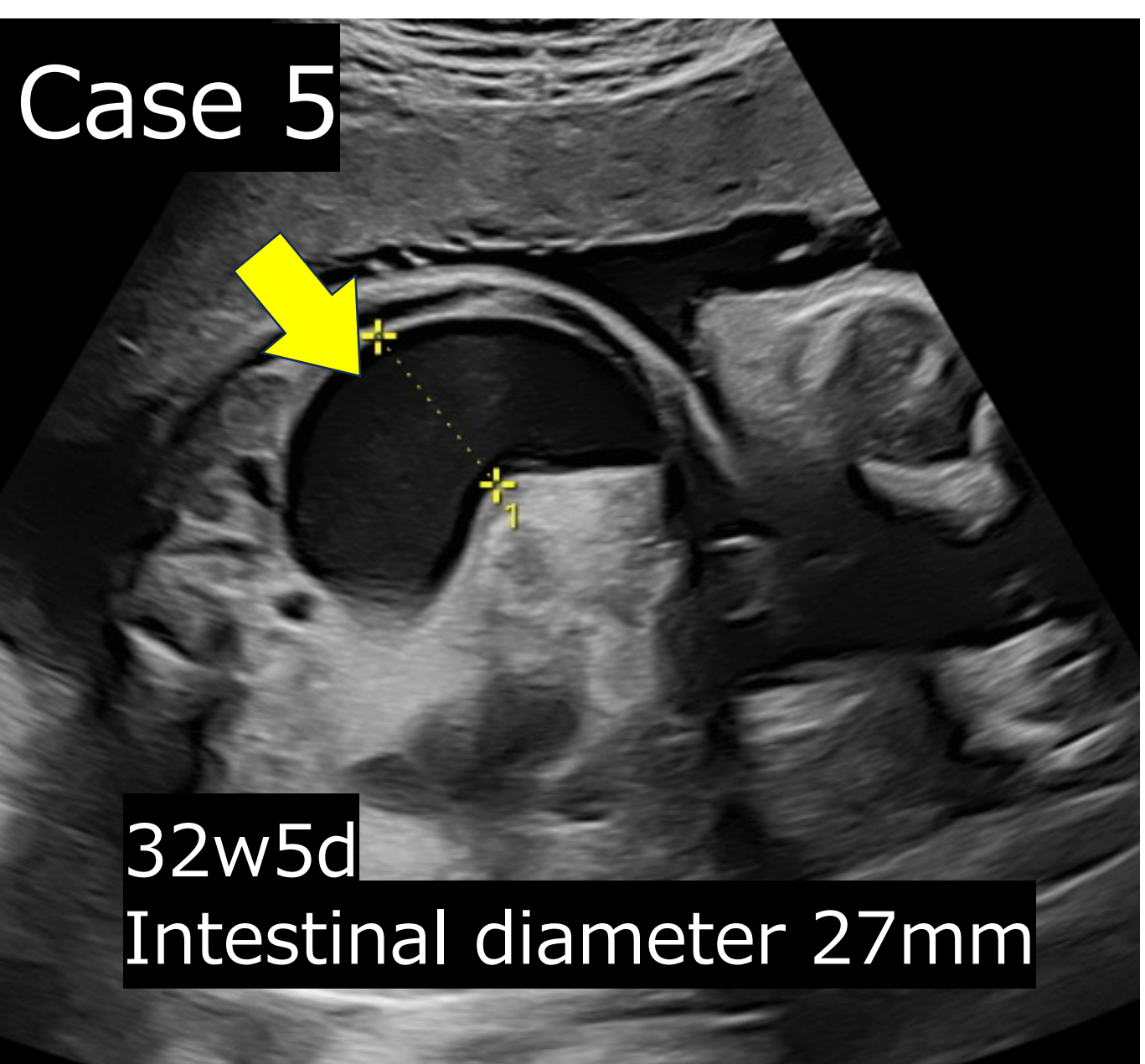
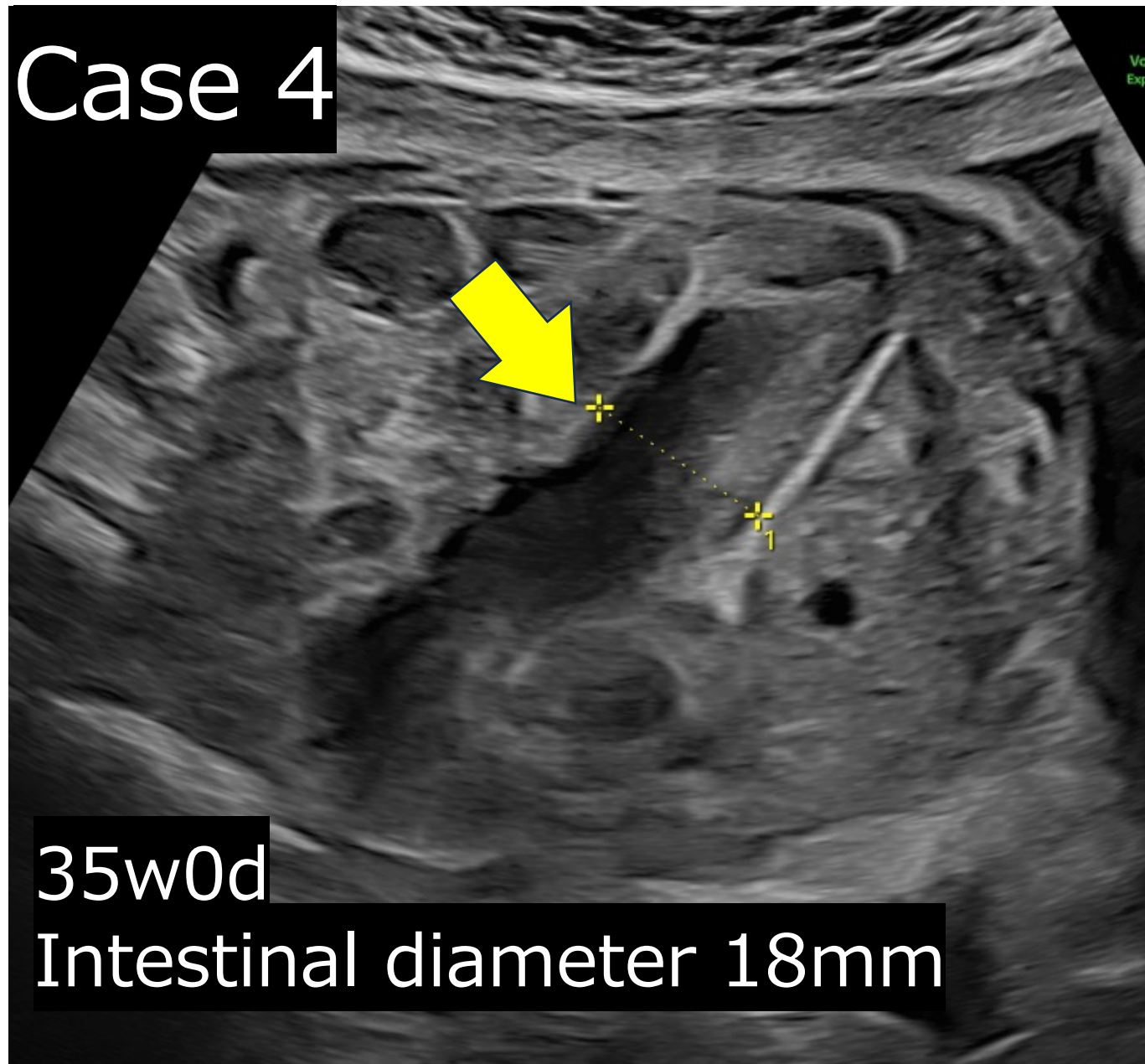
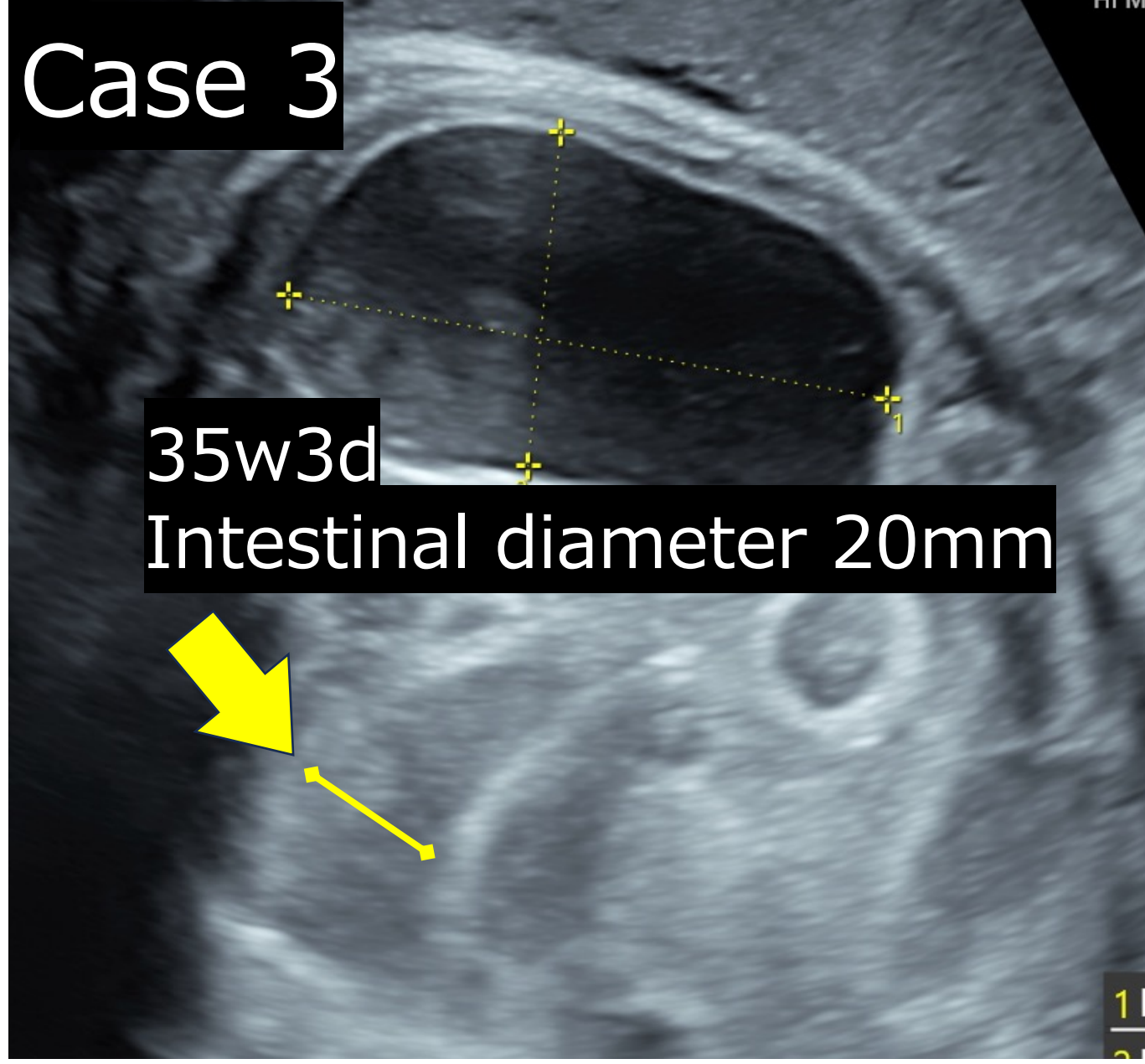
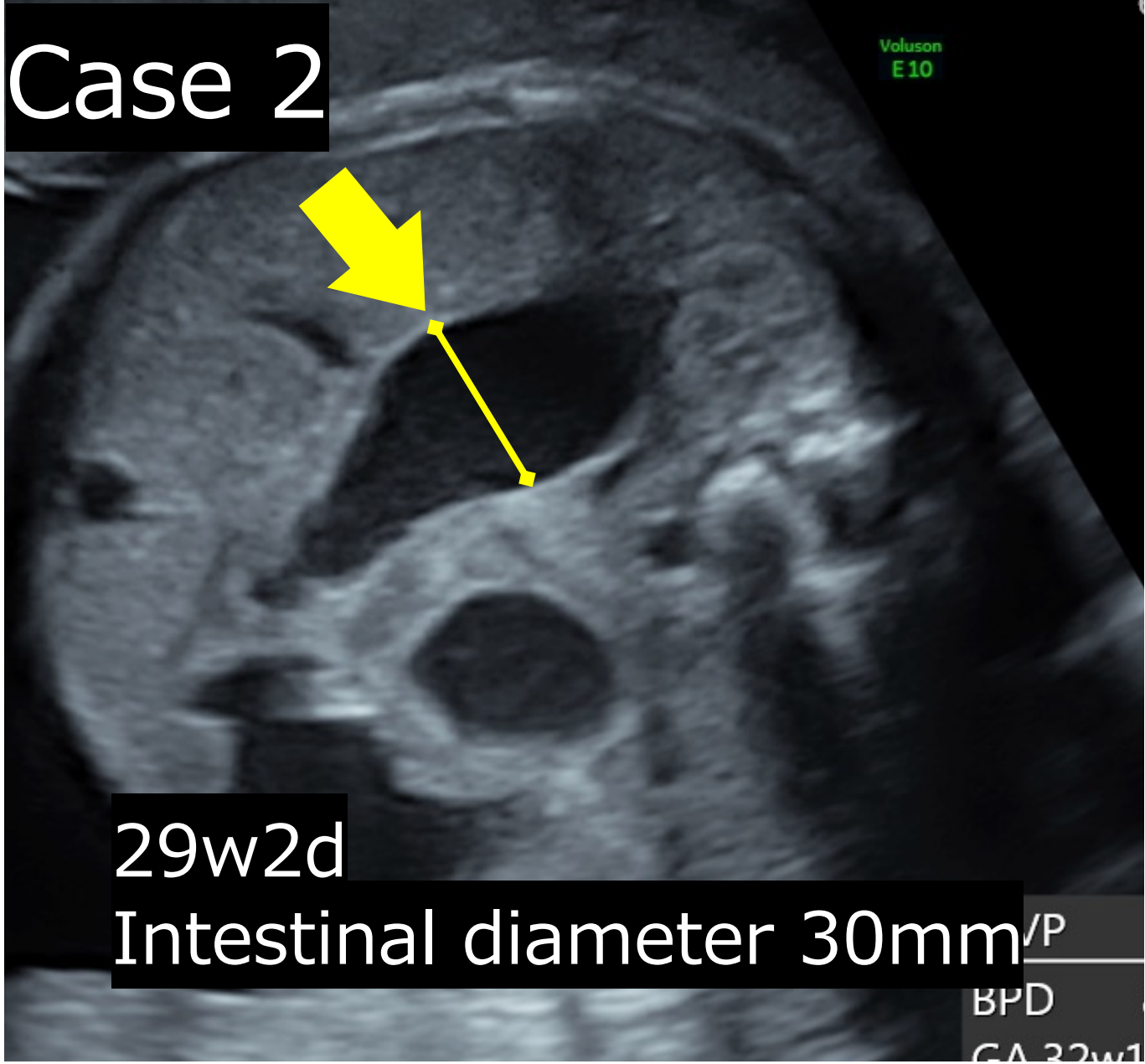
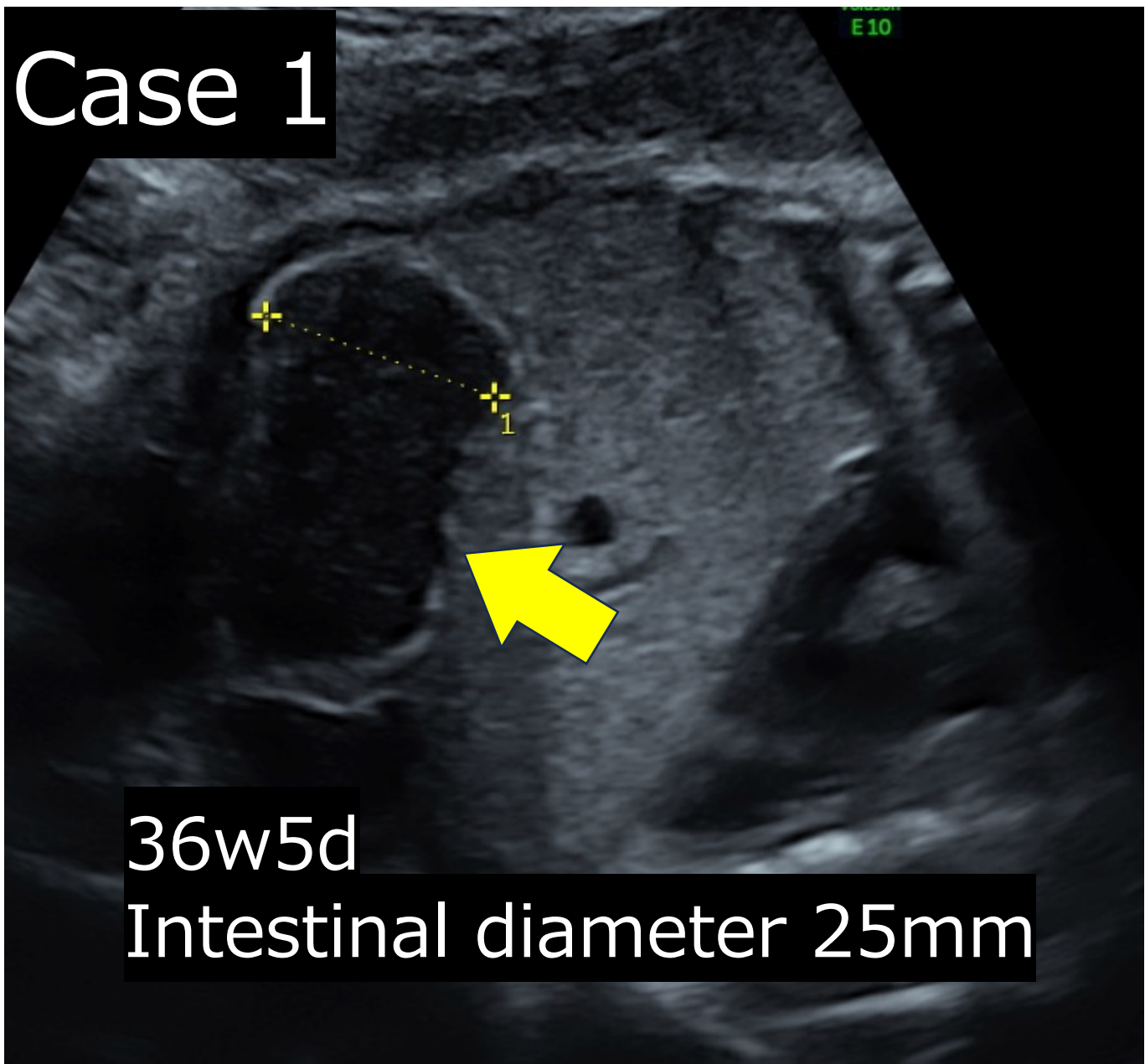


Objective: Fetal bowel dilatation detected in the third trimester suggests intestinal obstruction; however, there is no clear consensus regarding its clinical significance or perinatal management. We evaluated the clinical characteristics and perinatal outcomes of fetuses with bowel dilatation diagnosed in late pregnancy.

Methods: We retrospectively reviewed pregnancies managed at Shiga University of Medical Science Hospital between 2013 and 2025 with fetal bowel dilatation (bowel diameter ≥18 mm on prenatal ultrasound) identified during the third trimester. Maternal characteristics, ultrasound findings, pregnancy and neonatal outcomes were analyzed. Cases with structural or chromosomal anomalies were excluded. Postnatal diagnoses were surgically confirmed.

Results: Five cases met the inclusion criteria. The median gestational age at diagnosis was 33 weeks (range 28–35), and the median bowel diameter was 25 mm (range 18–30). The median gestational age at delivery was 35 weeks (range 34–39), with three preterm deliveries. The median birth weight was 2,416 g (range 2,349–2,786), and one neonate was small for gestational age. All neonates required surgery shortly after birth.

Final diagnoses were jejunal atresia (n=2), ileal atresia (n=2), and midgut volvulus (n=1). The median time from birth to surgery was 1 day.



Case	1	2	3	4	5
Maternal age (years)	40	32	36	29	31
Gravidity	2	3	2	1	1
Parity	1	1	0	0	0
GA at diagnosis	33w1d	28w1d	35w3d	35w0d	29w6d
Fetal intestinal diameter (mm)	25	30	20	18	28
Max MVP (cm)	4.7	7.6	2.4	5.2	8.6
GA at delivery	39w3d	35w3d	35w3d	37w4d	34w1d
Birth weight (g)	2416	2786	2349	2600	2362
Birth weight classification	SGA	AGA	AGA	AGA	AGA
Sex	female	female	female	male	female
Mode of delivery	VD	VD	CS	VD	CS
Apgar scores at 1 min	8	8	7	8	8
Apgar scores at 5 min	9	9	9	9	9
Umbilical artery pH	7.309	7.361	7.383	7.325	7.314
Base excess	-2	-5	-2.7	-2	-3.5
Surgical method	Ileocecal resection	Small bowel anastomosis	Partial small bowel resection and anastomosis	Partial small bowel resection and anastomosis	Small bowel anastomosis
Final diagnosis	Ileal atresia	Jejunal atresia	Ileal atresia	Small intestine volvulus	Jejunal atresia
Time from birth to surgery (days)	1	2	0	2	0
Time from surgery to discharge (days)	22	15	28	23	86

Conclusion:Third-trimester fetal bowel dilatation was consistently associated with neonatal intestinal obstruction requiring early surgery and was frequently accompanied by preterm delivery. Prenatal recognition should prompt immediate neonatal evaluation and early involvement of pediatric surgeons.