

Supplementary Table 1: Demographic characteristics of the pregnant patients

Characteristics	Value
Maternal age (years)	32.8 ± 4.4
Maternal body mass index pre-pregnancy (kg/m ²)	27.83 ± 4.96
Gestational age (weeks)	39.1 ± 0.1
Fetal birthweight (g)	3162 ± 432
Ethnicity	
Caucasian (Europe, Middle East, North Africa, Americas, Australia)	4 (80%)
East Asian (China, Korea, Japan, South East Asia)	0
Central Asian (India, Pakistan, Nepal, Sri Lanka)	1 (20%)
Gravidity	
1	0
2	2 (40%)
3	2 (40%)
4	0
5	1 (20%)
Parity	
1	0
2	3 (60%)
3	2 (40%)

Continuous variables are shown as the mean ± standard deviation; categorical variables are shown as the number of cases and percentage in parentheses.

Supplementary Table 2: TaqMan gene expression assay IDs

Gene	Full name	Species	TaqMan ID
<i>YHWAZ</i>	Tyrosine 3-Monooxygenase/Tryptophan 5-Monooxygenase Activation Protein Zeta	Human	Hs01122454_m1
<i>IL-1β</i>	Interleukin-1 beta	Human	Hs01555410_m1
<i>IL-6</i>	Interleukin-6	Human	Hs00174131_m1
<i>CXCL8</i>	CXC motif chemokine ligand-8	Human	Hs00174103_m1
<i>Polr2a</i>	RNA polymerase II subunit A	Mouse	Mm00839502_m1
<i>Il-1b</i>	Interleukin-1 beta	Mouse	Mm00434228_m1
<i>Il-6</i>	Interleukin-6	Mouse	Mm00446190_m1
<i>Tnf</i>	Tumor necrosis factor	Mouse	Mm00443258_m1
<i>Hmox-1</i>	Heme oxygenase-1	Mouse	Mm00516005_m1
<i>Gja1</i>	Gap junction alpha-1	Mouse	Mm00439105_m1
<i>Ccl2</i>	C-C Motif Chemokine Ligand 2	Mouse	Mm00441242_m1
<i>Oxtr</i>	Oxytocin receptor	Mouse	Mm01182684_m1
<i>Ptgs2</i>	Prostaglandin-endoperoxide synthase 2	Mouse	Mm00478374_m1

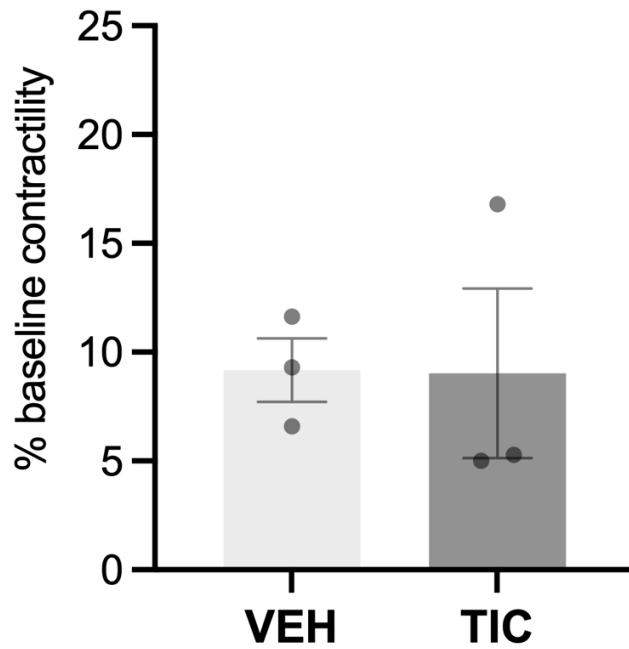


Figure S1: Ticagrelor-only treatment of myometrial cells (PHM1-41 cell line) embedded in collagen gel. Cells were treated with either vehicle control (ethanol; VEH) or ticagrelor (TIC; 1 μ M) to determine if ticagrelor alone influences myometrial contraction. The sizes of the collagen gels were measured at 0h and 48h and the percent decrease in gel area was calculated by subtracting the final size from the original size. Treatments were performed in quadruplicate and points in this figure represent the mean \pm SEM of those technical replicates (n=3 experimental replicates). Differences tested with unpaired t-test.

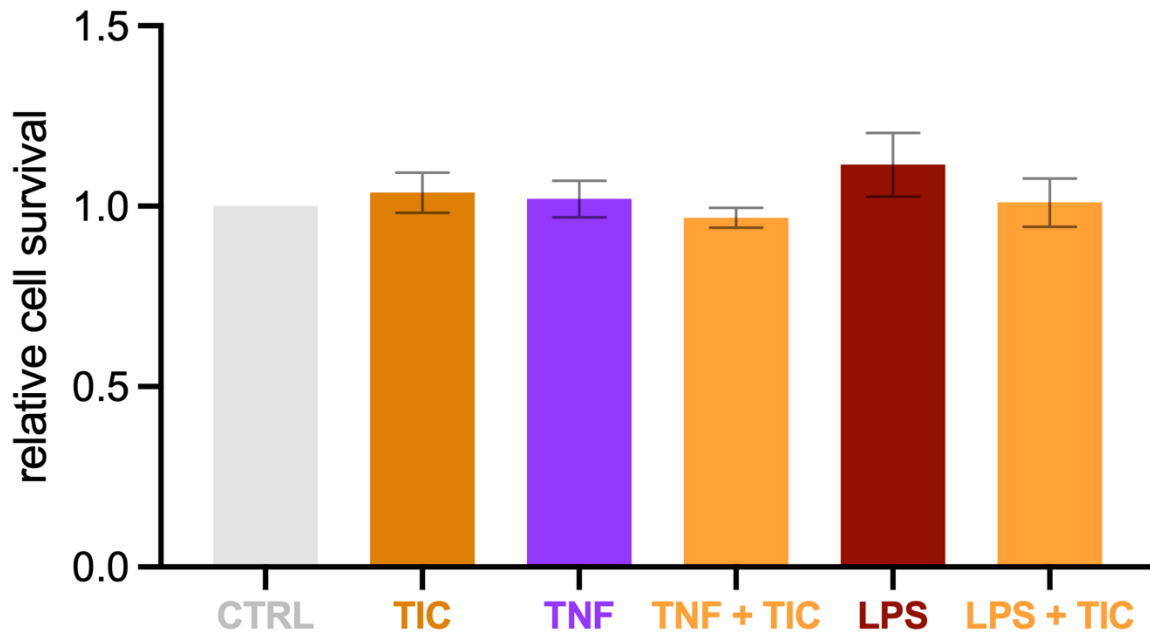


Figure S2: Treatment with ticagrelor (TIC; 1 μ M), TNF (0.1ng/ml), LPS (100ng/ml), or a combination of these treatments on cell viability. MTS assay was performed, and absorbance was read at a wavelength of 490nm and calculated relative to the absorbance reading of the vehicle-treated (CTRL) cells (n=4 experiments). Differences were analysed using ANOVA followed by Dunnett's multiple comparisons. Cell survival was not statistically different between treatments (P>0.05).

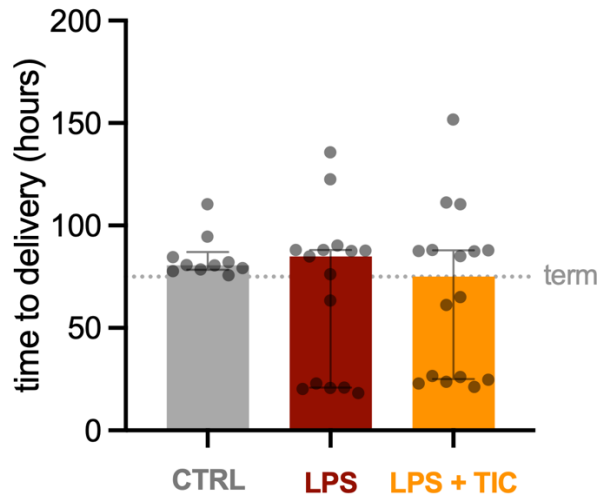


Figure S3: Time from injection of LPS (or vehicle (CTRL)) on GD15.5 to delivery was determined by infrared camera recordings. Data presented as median \pm interquartile range. Differences tested using Kruskal-Wallis followed by Dunn's multiple comparisons. Where there are no statistically significant differences, there are no pairwise comparisons shown on graphs.