Supplementary

Table S1 Surgical variables of the whole cohort

Surgical variables	All patients, n (%), n=1,191	All patients, n (%), VTE, n=129	All patients, n (%), Non VTE, n=1,062	P value
ASA classification				
2	759 (63.6%)	86 (66.7%)	673 (63.2%)	0.681
3	435 (36.4%)	43 (33.3%)	392 (36.8%)	0.514
Type of resection				
Right colon	316 (26.5%)	33 (25.6%)	283 (26.6%)	0.810
Transverse colon	92 (7.7%)	4 (3.1%)	88 (8.3%)	0.038
Left colon	221 (18.5%)	16 (12.4%)	205 (19.2%)	0.059
Proctectomy/Proctocolectomy	563 (47.2%)	74 (57.4%)	489 (45.9%)	0.018
Length of surgery				
0–59 min	6 (0.5%)	1 (0.8%)	5 (0.5%)	0.643
60–119 min	38 (3.2%)	2 (1.6%)	36 (3.4%)	0.263
120–179 min	227 (19.0%)	20 (15.5%)	207 (19.4%)	0.282
≥180 min	923 (77.3%)	106 (82.2%)	817 (76.7%)	0.265
Surgical approach				
Open	257 (21.5%)	25 (19.5%)	232 (21.8%)	0.868
Laparoscopic/Robotic	937 (78.5%)	104 (80.6%)	833 (78.2%)	0.890

ASA, American Society of Anesthesiologists; CRC, colorectal cancer patient; VTE, venous thromboembolism.

https://dx.doi.org/10.21037/jgo-23-18

Table S2 The characteristics of the whole cohort

Patient characteristics	All patients, n (%) or median (IQR), n=1,191	All patients, n (%) or median (IQR), VTE, n=129	All patients, n (%) or median (IQR), Non VTE, n=1,062	P value
Patient-related factors				
Age	63 [54 to 70]	64 [56 to 72]	63 [54 to 70]	0.169
Females	419 (35.1%)	61 (47.3%)	358 (33.6%)	0.003
BMI ≥ 25	224 (18.8%)	30 (23.3%)	194 (18.2%)	0.166
BMI ≥ 28	53 (4.4%)	7 (5.4%)	46 (4.3%)	0.564
Hypertension	315 (26.4%)	32 (24.8%)	283 (26.6%)	0.667
Diabetes mellitus	149 (12.5%)	13 (10.1%)	136 (12.8%)	0.382
Dyslipidemia	119 (10.0%)	8 (6.2%)	111 (10.4%)	0.131
Liver cirrhosis	7 (0.6%)	2 (1.6%)	5 (0.5%)	0.129
Hepatic dysfunction	46 (3.9%)	3 (2.3%)	43 (4.0%)	0.340
Chronic lung disease	30 (2.5%)	5 (3.9%)	25 (2.3%)	0.295
Heart failure	5 (0.4%)	–	5 (0.5%)	0.435
History of a myocardial infarction	70 (5.9%)	4 (3.1%)	66 (6.2%)	0.157
History of a stroke	61 (5.1%)	7 (5.4%)	54 (5.15%)	0.862
Atrial fibrillation	16 (1.3%)	1 (0.8%)	15 (1.4%)	0.555
Varicose vein	6 (0.5%)	2 (1.6%)	4 (0.4%)	0.075
History of VTE	2 (0.2%)	2 (1.6%)	–	< 0.001
History of major bleeding	37 (3.1%)	3 (2.3%)	34 (3.2%)	0.592
Cancer-related Factors				
Tumor stage I-II	570 (47.7%)	51 (39.5%)	519 (48.7%)	0.048
Tumor stage III-IV	624 (52.3%)	78 (60.5%)	546 (51.3%)	0.048
T stage				
1	54 (4.5%)	6 (4.7%)	48 (4.5%)	0.941
2	148 (12.4%)	11 (8.5%)	137 (12.9%)	0.158
3	694 (58.1%)	73 (56.6%)	621 (58.3%)	0.708
4a	227 (19.0%)	31 (24.0%)	196 (18.4%)	0.124
4b	71 (5.9%)	8 (6.2%)	63 (5.9%)	0.897
N stage				
0	624 (52.3%)	51 (39.5%)	573 (53.8%)	0.001
1a	210 (17.6%)	32 (24.8%)	178 (16.7%)	0.023
1b	93 (7.8%)	13 (10.1%)	80 (7.5%)	0.304
1c	24 (2.0%)	2 (1.6%)	22 (2.1%)	0.694
2a	162 (13.6%)	20 (15.5%)	142 (13.3%)	0.497
2b	81 (6.8%)	11 (8.5%)	70 (6.6%)	0.404
M stage				
0	978 (81.9%)	100 (77.5%)	878 (82.4%)	0.170
1a	177 (14.8%)	23 (17.8%)	154 (14.5%)	0.309
1b	13 (1.1%)	1 (0.8%)	12 (1.1%)	0.716
1c	26 (2.2%)	5 (3.9%)	21 (2.0%)	0.162
Metastasis disease	288 (24.1%)	39 (30.2%)	249 (23.4%)	0.086
The site of tumor				
Right colon	316 (26.5%)	33 (25.6%)	283 (26.6%)	0.810
Transverse colon	92 (7.7%)	4 (3.1%)	88 (8.3%)	0.038
Left colon	221 (18.5%)	16 (12.4%)	205 (19.2%)	0.059
Sigmoid colon/Rectum	563 (47.2%)	74 (57.4%)	489 (45.9%)	0.018
Appendix/cecum	2 (0.2%)	2 (1.6%)	–	< 0.001
Treatment-related Factors				
Radiotherapy	46 (3.9%)	4 (3.1%)	42 (3.9%)	0.639
Neoadjuvant chemotherapy	227 (19.0%)	25 (19.4%)	202 (19.0%)	0.910
Preoperative chemotherapy regimens				
FLOT [a]	1 (0.1%)	1 (0.8%)	–	0.207
FOLFIRI b	4 (0.3%)	1 (0.8%)	3 (0.3%)	0.368
FOLFIRI [b] + targeted drug [k]	2 (0.2%)	–	2 (0.2%)	0.622
mFOLFOX6 [c]	145 (12.2%)	19 (14.7%)	126 (11.9%)	0.347
mFOLFOX6 [c] + targeted drug [k]	11 (0.9%)	2 (1.6%)	9 (0.8%)	0.431
FOLFOXIRI d	30 (2.5%)	2 (1.6%)	28 (2.6%)	0.457
FOLFOXIRI [d] + bevacizuma[b] i	8 (0.7%)	4 (3.1%)	4 (0.4%)	< 0.001
FOLFOXIRI [d] + cetuximab j	4 (0.3%)	–	4 (0.4%)	0.485
XELIRI e	1 (0.1%)	–	1 (0.1%)	0.727
XELO [f] + targeted drug k	1 (0.1%)	–	1 (0.1%)	0.727
XELOX g	24 (2.0%)	2 (1.6%)	22 (2.1%)	0.691
PD-1/PD-L1 inhibitors	19 (1.6%)	3 (2.3%)	16 (1.5%)	0.483
Postoperative chemotherapy	43 (3.6%)	13 (10.1%)	30 (2.8%)	< 0.001
Postoperative chemotherapy regimens				
FOLFIRI b	2 (0.2%)	/	2 (0.2%)	0.622
FOLFIRI [b] + targeted drug [k]	2 (0.2%)	1 (0.8%)	1 (0.1%)	0.074
mFOLFOX6 c	10 (0.8%)	1 (0.8%)	9 (0.8%)	0.932
mFOLFOX6 [c] + targeted drug [k]	19 (1.6%)	1 (0.8%)	18 (1.7%)	0.431
FOLFOXIRI [d]	22 (1.8%)	3 (2.3%)	19 (1.8%)	0.669
FOLFOXIRI [d] + bevacizumab [i]	8 (0.7%)	2 (1.6%)	6 (0.6%)	0.196
FOLFOXIRI [d] + cetuximab [j]	1 (0.1%)	–	1 (0.1%)	0.727
XELIRI [e]	1 (0.1%)	–	1 (0.1%)	0.727
XELO [f] + targeted drug [k]	3 (0.3%)	1 (0.8%)	2 (0.2%)	0.209
XELOX [g]	2 (0.2%)	–	2 (0.2%)	0.622
De Gramont [h]	3 (0.3%)	–	3 (0.3%)	0.546
PD-1/PD-L1 inhibitors	19 (1.6%)	2 (1.6%)	17 (1.6%)	0.966
Patients receiving prophylaxis (LMWH)	297 (24.9%)	36 (27.9%)	261 (24.5%)	0.806
Laboratory-level factors (dynamic temporal data)				
RBC (< 4×10^{12}/L)	1133 (95.1%)	123 (96.9%)	1009 (94.9%)	0.332
HCT (< 0.37)	1184 (99.4%)	127 (99.2%)	1057 (99.4%)	0.762
HGB (< 110 g/L)	1042 (87.5%)	120 (93.8%)	922 (86.7%)	0.023
MCH (< 27 pg)	235 (19.7%)	21 (16.4%)	214 (20.1%)	0.317
MCHC (< 310 g/L)	30 (2.5%)	6 (4.7%)	24 (2.3%)	0.097
MCV (< 80 fL)	114 (9.6%)	7 (5.5%)	107 (10.1%)	0.095
MPV (> 11 fL)	209 (17.5%)	27 (21.1%)	182 (17.1%)	0.264
PDW-SD (< 9.8)	19 (1.6%)	3 (2.3%)	16 (1.5%)	0.474
RDW-CV (> 14.5)	687 (57.7%)	80 (62.5%)	607 (57.1%)	0.243
RDW-SD (< 35 fL)	3 (0.3%)	1 (0.8%)	2 (0.2%)	0.206
NRBC/100 WBC (> 0.1)	985 (82.7%)	106 (82.8%)	879 (82.7%)	0.972
NRBC (> 0.05×10^9/L)	94 (7.9%)	6 (4.7%)	88 (8.3%)	0.155
FPG (> 7.9 mmol/L)	513 (43.1%)	60 (46.9%)	453 (42.6%)	0.358
CO_2CP (> 29 mmol/L)	14 (1.2%)	0	14 (1.3%)	0.192
CO_2CP (< 22 mmol/L)	18 (1.5%)	1 (0.8%)	17 (1.6%)	0.474
PLT (> 350×10^9/L)	137 (11.5%)	14 (10.9%)	123 (11.5%)	0.815
D-dimer (> 0.5 μg/mL)	927 (77.6%)	128 (99.2%)	799 (75.0%)	< 0.001
FIB (> 4 g/L)	171 (14.3%)	25 (19.4%)	146 (13.7%)	0.082
PT (< 10 s)	14 (1.2%)	–	14 (1.3%)	0.190
PT-INR (< 1)	282 (23.6%)	20 (15.5%)	262 (24.6%)	0.022
aPTT (< 20 s)	3 (0.3%)	3 (2.3%)	–	< 0.001
TT (< 14 s)	387 (32.4%)	55 (42.6%)	332 (31.2%)	0.009
A/G (> 2.0)	15 (1.3%)	4 (3.1%)	11 (1.0%)	0.045
GLb (< 20 g/L)	123 (10.3%)	15 (11.7%)	108 (10.2%)	0.584
ALT (> 40 U/L)	361 (30.3%)	44 (34.4%)	317 (29.8%)	0.290
AST (> 40 U/L)	482 (40.5%)	61 (47.7%)	421 (39.6%)	0.080
γ-GT (> 50 U/L)	610 (51.2%)	69 (53.9%)	541 (50.9%)	0.519
AFP (> 400 μg/L)	23 (1.9%)	1 (0.8%)	22 (2.1%)	0.317
AKP (> 135 U/L)	12 (1.0%)	2 (1.6%)	10 (0.9%)	0.506
ALb (> 51 g/L)	–	–	–	–
PA (> 0.35 g/L)	–	–	–	–
TP (< 60 g/L)	931 (78.2%)	101 (78.9%)	830 (78.1%)	0.831
TG (> 1.81 mmol/L)	437 (36.7%)	53 (41.4%)	384 (36.1%)	0.241
CH (> 5.68 mmol/L)	–	–	–	–
Lp (a) (> 300 mg/L)	626 (52.6%)	67 (52.3%)	559 (52.6%)	0.958
ApoA1 (> 2.36 g/L)	–	–	–	–
ApoB (> 1.28 g/L)	–	–	–	–
LDL (> 3.36 mmol/L)	–	–	–	–
HDL (< 0.78 mmol/L)	248 (20.8%)	21 (16.4%)	227 (21.4%)	0.193
TBA (> 10.0 μmol/L)	5 (0.4%)	2 (1.6%)	3 (0.3%)	0.034
TBIL (> 17.1 μmol/L)	270 (22.7%)	42 (32.8%)	228 (21.4%)	0.004
DBIL (> 6.8 μmol/L)	365 (30.6%)	58 (45.3%)	307 (28.9%)	< 0.001
IBIL (> 10.2 μmol/L)	506 (42.5%)	47 (36.7%)	459 (43.2%)	0.162
U-BLD (+, μmol/L)	143 (12.0%)	13 (10.2%)	130 (12.2%)	0.495
U-BIL (> 14 μmol/L)	906 (76.1%)	96 (75.0%)	810 (76.2%)	0.764
URO (-, μmol/L)	7 (0.6%)	2 (1.6%)	5 (0.5%)	0.127
KET (+, mg/L)	340 (28.5%)	35 (27.3%)	305 (28.7%)	0.750
PRO (+, g/L)	39 (3.3%)	2 (1.6%)	37 (3.5%)	0.249
LEU (+,/μL)	47 (3.9%)	6 (4.7%)	41 (3.9%)	0.648
BUN (> 8.8 mmol/L)	65 (5.5%)	5 (3.9%)	60 (5.6%)	0.413
USG (> 1.03)	4 (0.3%)	1 (0.8%)	3 (0.3%)	0.357
SQEP (> 21.4/μL)	–	–	–	–
BYST (μL)	86.4 ± 28.2	90.7 ± 22.8	85.92 ± 28.8	0.068
HYAL (μL)	2.1 ± 0.5	2.3 ± 0.5	2.1 ± 0.5	< 0.001
Cr (> 133.0 μmol/L)	674 (56.6%)	53 (41.4%)	621 (58.4%)	< 0.001
CYS-C (> 1.03 mg/L)	1129 (94.8%)	117 (91.4%)	1012 (95.2%)	0.068
RBP (> 57.9 mg/L)	5 (0.4%)	–	5 (0.5%)	0.437
UA (> 416 μmol/L)	5 (0.4%)	–	5 (0.5%)	0.437
WBC (> 11×10^9/L)	215 (18.0%)	40 (31.0%)	175 (16.4%)	< 0.001
LYM (> 3.5×10^9/L)	11 (0.9%)	–	11 (1.0%)	0.248
LYM (< 0.8×10^9/L)	37 (3.1%)	2 (1.6%)	35 (3.3%)	0.287
LYMR (> 0.4)	–	–	–	–
NEU (> 7×10^9/L)	1151 (96.6%)	125 (97.7%)	1026 (96.5%)	0.793
NEUR (> 0.7)	1186 (99.6%)	127 (99.2%)	1059 (99.6%)	0.503
MONO (> 0.8×10^9/L)	1017 (85.4%)	115 (89.8%)	902 (84.9%)	0.131
MONOR (> 0.08)	274 (23.0%)	37 (28.9%)	237 (22.3%)	0.093
EOS (> 0.5×10^9/L)	188 (15.8%)	20 (15.6%)	168 (15.8%)	0.958
EOSR (> 0.05)	8 (0.7%)	1 (0.8%)	7 (0.7%)	0.872
BASO (> 0.1×10^9/L)	299 (25.1%)	20 (15.6%)	279 (26.2%)	0.009
BASOR (> 0.005)	292 (24.5%)	37 (28.9%)	255 (24.0%)	0.222
PCT (> 0.5 ng/mL)	887 (74.5%)	97 (75.8%)	790 (74.3%)	0.720
CRP (> 10 mg/L)	778 (65.2%)	103 (79.8%)	675 (63.4%)	< 0.001
hs-CRP (> 3 mg/L)	1191 (100%)	–	–	–
NSE (> 5.4 μg/L)	–	–	–	–
MYO (> 75 ng/mL)	182 (15.2%)	22 (17.1%)	160 (15.0%)	0.544
HsTnI (> 0.2 ng/mL)	38 (3.2%)	10 (7.8%)	28 (2.6%)	0.002
CK (> 174 U/L)	150 (12.6%)	14 (10.9%)	136 (12.8%)	0.535
CKMB (> 25 U/L)	106 (8.9%)	18 (14.0%)	88 (8.3%)	0.032
LDH (> 245 U/L)	179 (15.0%)	29 (22.5%)	150 (14.1%)	0.012
α-HBDH (> 220 U/L)	48 (4.0%)	7 (5.4%)	41 (3.8%)	0.389

[a] cycle of FLOT chemotherapy consisted of the following: Day 1: Intravenous (IV) leucovorin 200 mg/m^2 in 2 h; IV oxaliplatin 85 mg/m^2 in 120 min; IV docetaxel 50 mg/m^2; 5-fluorouracil (5-FU) 400 mg/m^2 bolus IV then 2400 mg/m^2 perfusion IV over 46 h. The next chemotherapy cycle was repeated on the 15th day. [b] A cycle of FOLFIRI chemotherapy consisted of the following: Day 1: IV irinotecan 180 mg/m^2 in 90 min; IV leucovorin 200 mg/m^2 in 2 h; 5-FU 400 mg/m^2 bolus IV then 2400 mg/m^2 perfusion IV over 46 h. The next chemotherapy cycle was repeated on the 15th day. [c] A cycle of mFOLFOX6 consists of the following: Day 1: IV oxaliplatin 85 mg/m^2 in 120 min; IV leucovorin 200 mg/m^2 in 2 h; 5-FU 400 mg/m^2 bolus IV then 2,400 mg/m^2 perfusion IV over 46 h. The next chemotherapy cycle was repeated on the 15th day. [d] A cycle of FOLFOXIRI consisted of the following: Day 1: IV irinotecan 165 mg/m^2 in 90 min; IV oxaliplatin 85 mg/m^2 in 120 min; IV leucovorin 200 mg/m^2 in 2 h; 5-FU 400 mg/m^2 bolus IV then 2,400 mg/m^2 perfusion IV over 46 h. The next chemotherapy cycle was repeated on the 15th day. [e] A cycle of XELIRI consists of the following: Day 1: IV irinotecan 165 mg/m^2 in 90 min; capecitabine 1,000 mg/m^2 PO twice daily for 14 out of 21 days. [f] A cycle of XELO consists of the following: Day 1: IV oxaliplatin 130 mg/m^2 in 120 min; capecitabine 1,000 mg/m^2 PO twice daily for 14 out of 21 days. [g] A cycle of XELOX consists of the following: capecitabine 1,000 mg/m^2 PO twice daily for 14 out of 21 days. [h] A cycle of De Gramont consists of the following: Day 1: IV leucovorin 200 mg/m^2 in 2 h; 5-FU 400 mg/m^2 bolus IV then 1,200 mg/m^2 perfusion IV over 46 h. The next chemotherapy cycle was repeated on the 15th day. [i] Bevacizumab (5 mg/kg IV every 14 days) and standard fluoropyrimidine-based chemotherapy. [j] Cetuximab (500 mg/m^2 IV every 14 days) and standard fluoropyrimidine-based chemotherapy. [k] Targeted drug: oral molecular target drugs including sorafenib, regorafenib, and fruquintinib. AFP, alpha-fetoprotein; A/G, albumin/globulin; AKP, alkaline phosphatase; ALb, albumin; ALT, alanine aminotransferase; ApoA1, apolipoprotein A1; ApoB, apolipoprotein B; aPTT, activated partial thromboplastin time; AST, aspartate aminotransferase; BASO, basophils; BASOR, basophils ratio; BMI, body mass index; BUN, blood urea nitrogen; BYST, Budding yeast cells; CH, cholesterols; CK, creatine kinase; CKMB, creatine kinase isoenzyme; CO_2CP, carbon dioxide combining power; Cr, creatinine; CRP, C-reactive protein; hs-CRP, high sensitivity-C-reactive protein; CYS-C, cystatin C; DBIL, direct bilirubin; EOS, eosinophils; EOSR, eosinophils ratio; FGP, fasting glucose proxy measure; FIB, fibrinogen; GLb, globulin; γ-GT, γ-glutamyltranspeptidase; α-HBDH, α-hydroxybutyrate dehydrogenase; HCT, hematocrit; HGB, hemoglobin; HDL, high-density lipoprotein; HsTnI, high-sensitivity troponin I; HYAL, hyalinecasts; IBIL, indirect bilirubin; IQR, interquartile range; KET, ketone bodies; LDH, lactate dehydrogenase; LDL, low-density lipoprotein; LEU, urine leukocytes; LMWH, low molecular weight heparin; Lp (a), lipoprotein (a); LYM, lymphocytes; LYMR, lymphocytes ratio; MCH, mean corpuscular hemoglobin; MCHC, mean cell hemoglobin concentration; MCV, mean corpuscular volume; MONO, monocyte; MONOR, monocyte ratio; MPV, mean platelet volume; MYO, myoglobin; NEU, neutrophils; NEUR, neutrophils ratio; NRBC, nucleated red blood cells; NSE, neuron-specific enolase; PA, prealbumin; PCT, Serum procalcitonin; PDW-SD, platelet distribution width-standard deviation; PLT, platelet; PRO, urinary protein; PT, prothrombin time; PT-INR, prothrombin time-international normalized ratio; RBC, red blood cells; RBP, plasma-retinol binding protein; RDW-CV, red blood cell distribution width-coefficient of variability; RDW-SD, red blood cell distribution width-standard deviation; SQEP, squamous epithelial cells; TBA, total bile acid; TBIL, total bilirubin; TG, total triglycerides; TP, serum total protein; TT, thrombin time; UA, uric acid; U-BLD, urine routine: occult blood; U-BIL, urine routine: bilirubin; URO, urobilinogen; USG, urine specific gravity; VTE, venous thromboembolism; WBC, white blood cells.

https://dx.doi.org/10.21037/jgo-23-18

Table S3 Previous VTE risk assessment models and risk factors used as predictors

Risk factors in Caprini score	Relative risk score	Risk factors in Khorana score	Relative risk score
Age, 41–60	1	Site of cancer [b]	3
Age, 61–74	2	Very high risk (stomach, pancreas)	3
Age, 75+	3	High risk (lung, lymphoma, gynecologic, bladder, testicular	3
Acute myocardial infarction	1	Prechemotherapy platelet count 350×10^9/L or more	3
Heart failure	1	Hemoglobin level less than 100 g/L or use of red cell growth factors	2
Varicose veins	1	Prechemotherapy leukocyte count more than 11×10^9/L	1
Obesity (BMI >25)	1	BMI ≥35	1
Inflammatory bowel disease	1		
Sepsis (within 1 month)	1		
COPD or abnormal pulmonary function	1		
Severe lung disease, including pneumonia (within 1 month)	1		
Oral contraceptives or hormone replacement therapy	1		
Pregnancy or postpartum (within 1 month)	1		
History of unexpected stillborn infant, recurrent spontaneous abortion (≥3), premature birth with toxemia or growth-restricted infant	1		
Medical patient currently at bed rest	1		
Minor surgery planned	1		
History of prior major surgery (within 1 month)	1		
Swollen legs	1		
Central venous catheter	2		
Arthroscopic surgery	2		
Major surgery (>45 min)	2		
Malignancy (present or previous)	2		
Laparoscopic procedure >45 min	2		
Patient confined to bed (>72 h)	2		
Immobilizing plaster cast (within 1 month)	2		
History of VTE[c]	3		
Positive Factor V Leiden; positive prothrombin G20210A; elevated serum homocysteine[a]	3		
Positive lupus anticoagulant[a]	3		
Heparin-induced thrombocytopenia	3		
Family history of VTE[c]	3		
Elevated anticardiolipin antibodies	3		
Stroke (within 1 month)	5		
Multiple trauma (within 1 month)	5		
Elective major lower extremity arthroplasty	5		
Hip, pelvis, or leg fracture (within 1 month)	5		
Acute spinal cord injury (paralysis) (within 1 month)	5		

[a], These risk factors cannot be tested at our site. [b], Cancer patients with local or distant metastases and/or in whom chemotherapy or radiotherapy had been performed in the past 6 months. [c], All types of VTE are included with the exception of superficial vein thromboembolism. BMI, body mass index; COPD, chronic obstructive pulmonary disease; VTE, venous thromboembolism.

https://dx.doi.org/10.21037/jgo-23-18

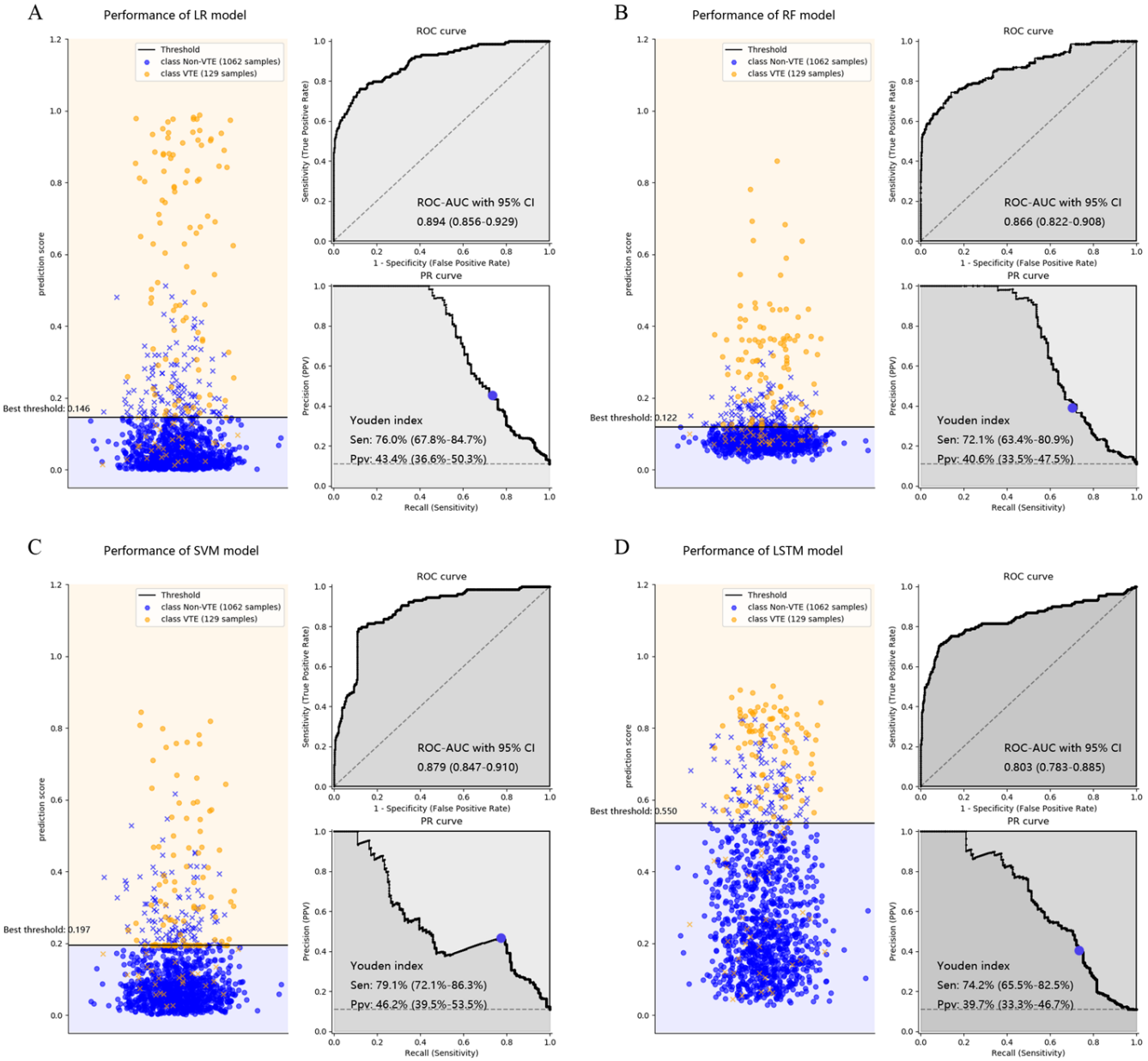

Figure S1 The model performance of the LR model (plot A), RF model (plot B), SVM (plot C), and LSTM (plot D). The classification based on the best threshold, the ROC curve and PR curve were plotted to measure the performance of the four machine learning models, and the AUCs were also calculated with 95% CIs. The best threshold points of these PR curves were plotted with corresponding sensitivities and positive predictive values. AUC, area under the curve; CI, confidence interval; LR, logistic regression; LSTM, long short-term memory; PPV, positive predictive value; PR, precision-recall curve; RF, random forest; ROC, receiver-operating characteristic curve; SEN, sensitivity; SVM, support vector machine; VTE, venous thromboembolism; *Youden* index: = sensitivity + specificity - 1.

https://dx.doi.org/10.21037/jgo-23-18