

**Supplementary information to:**

**Original article:**

**COAGULOPATHY IS ASSOCIATED WITH MULTIPLE ORGAN  
DAMAGE AND PROGNOSIS OF COVID-19**

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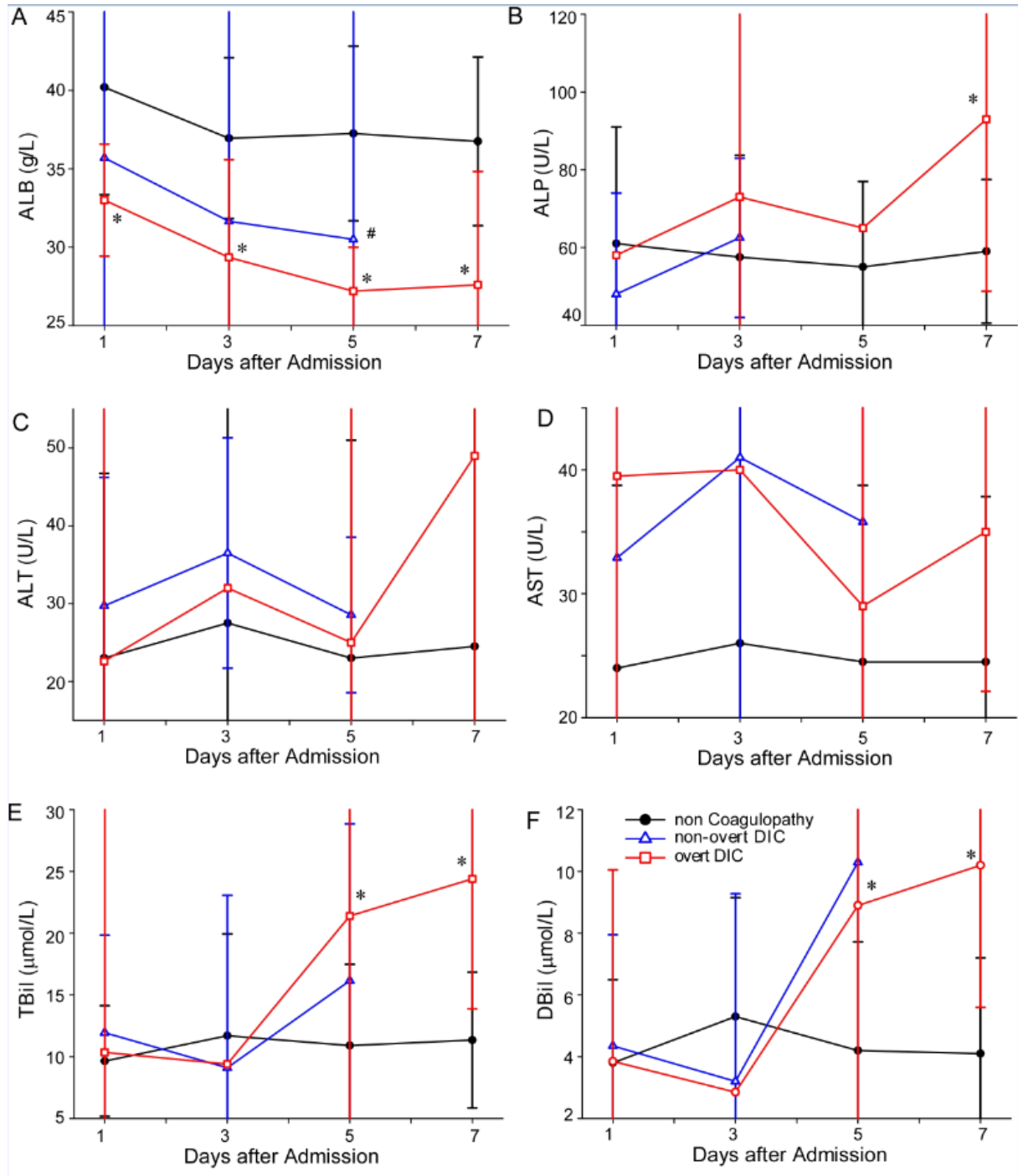
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**Supplementary Table 1:** Risk factors associated with overt DIC

| Overt DIC    | Univariable         |       | Multivariable       |       |
|--------------|---------------------|-------|---------------------|-------|
|              | 95% CI              | p     | 95% CI              | p     |
| Age          | 1.662 (0.711,3.887) | 0.241 |                     |       |
| Sex          | 1.005 (0.981,1.029) | 0.701 |                     |       |
| Diabetes     | 2.512 (0.947,6.662) | 0.064 |                     |       |
| Hypertension | 2.169 (0.922,5.100) | 0.076 |                     |       |
| WBC          | 3.986 (1.838,8.643) | 0.001 | 2.308 (0.876,6.081) | 0.091 |
| Monocyte     | 1.161 (0.983,1.371) | 0.079 |                     |       |
| Neutrophil   | 2.882 (1.173,7.082) | 0.021 |                     |       |
| CRP          | 1.018 (1.011,1.025) | 0.001 | 1.017 (1.010,1.024) | 0.001 |
| PCT          | 1.038 (0.977,1.102) | 0.229 |                     |       |
| IL6          | 1.002 (0.999,1.005) | 0.176 |                     |       |

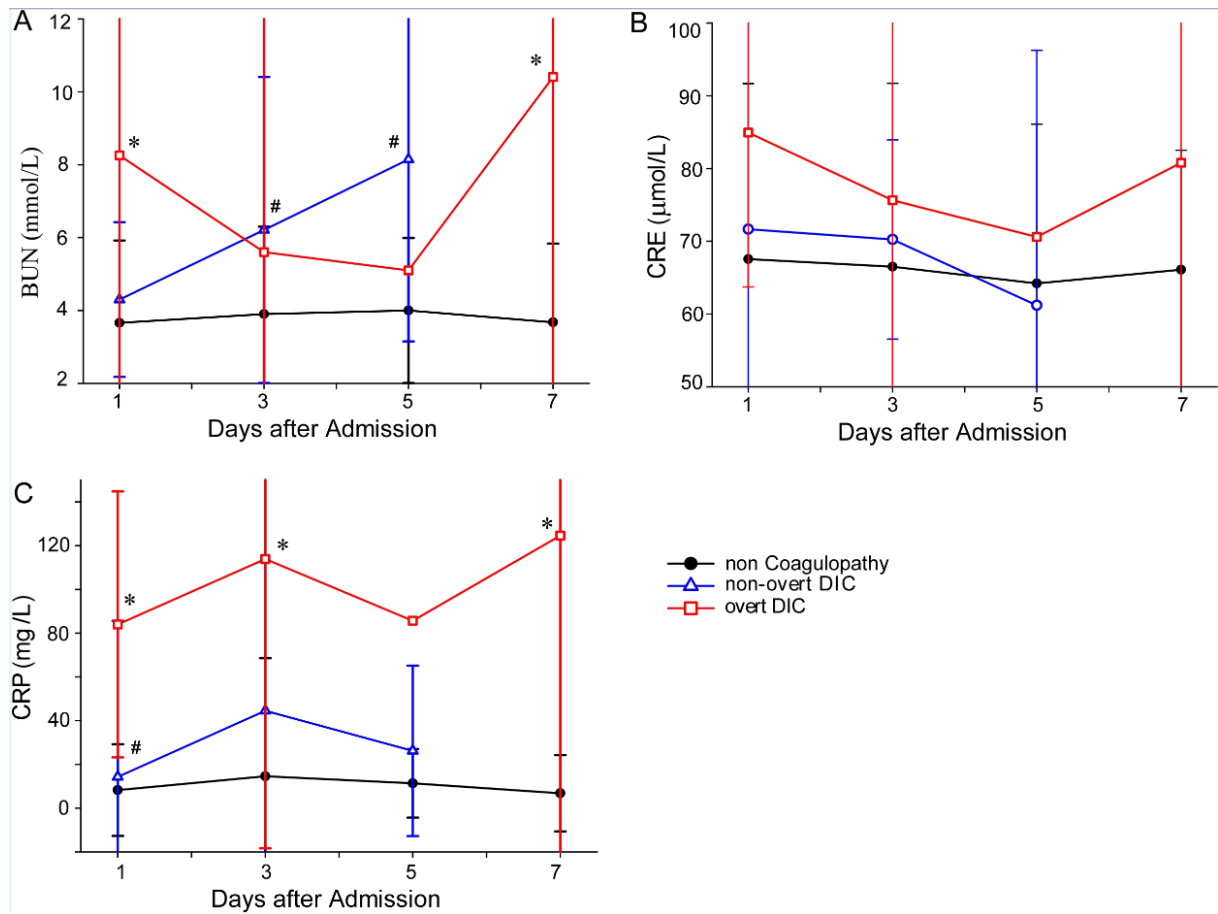
**Supplementary Table 2:** Potential mechanisms of coagulopathy in COVID-19

|  | Before overt DIC         | After overt DIC        | Before non-overt DIC    | After non-overt DIC     |
|--|--------------------------|------------------------|-------------------------|-------------------------|
| Interleukin 6, pg/mL                         | 33.29<br>(18.72, 478.84) | 34.29<br>(10.5, 76.86) | 69.00<br>(4.04, 261.90) | 21.03<br>(1.50, 411.70) |
| White blood cells count, ×10 <sup>9</sup> /L | 13.58<br>(4.05, 36.74)   | 15.46<br>(0.74, 35.41) | 9.94<br>(2.35, 24.28)   | 10.70<br>(2.38, 30.91)  |
| > 10   | 14 (67 %)                | 19 (70 %)              | 4 (36 %)                | 20 (63 %)               |
| Procalcitonin, ng/mL                         | 1.34<br>(0.08, 11.09)    | 0.89<br>(0.13, 19.26)  | 0.26<br>(0.13, 0.83)    | 0.13<br>(0.06, 31.90)   |
| > 2  | 3 (33 %)                 | 3 (37 %)               | 0                       | 4 (16 %)                |
|  | Before overt DIC         | Around overt DIC       | Before non-overt DIC    | Around non-overt DIC    |
| Monocyte count, ×10 <sup>9</sup> /L          | 0.37<br>(0.12, 1.75)     | 0.15<br>(0.00, 0.94)*  | 0.29<br>(0.01, 4.40)    | 0.21<br>(0.00, 0.40)    |



**Supplementary Figure 1:** Temporal changes of laboratory parameters related to liver functions in COVID-19 patients with or without coagulopathy before DIC occurrence

Supplementary Figure 1 shows dynamic changes of laboratory parameters related to liver functions, including albumin (A), alkaline phosphatase (B), alanine aminotransferase (C), aspartate aminotransferase (D), total bilirubin (E), and direct bilirubin (F) in 147 patients (125 non-coagulopathy patients, 13 non-overt patients and 9 overt-DIC patients) from the day of admission to the day before coagulopathy onset (for coagulopathy patients) or the day of admission (for non-coagulopathy) to day 7. \* $P < 0.05$  for overt DIC patients vs non-coagulopathy patients; # $P < 0.05$  for non-overt DIC patients vs non-coagulopathy patients. ALB=albumin, ALP=alkaline phosphatase, ALT= alanine aminotransferase, AST=aspartate aminotransferase, TBil=total bilirubin, DBil= direct bilirubinand.



**Supplementary Figure 2:** Temporal changes of renal and inflammation indices in COVID-19 patients with or without coagulopathy before DIC occurrence

Supplementary Figure 2 shows dynamic changes of biomarkers of kidney functions and inflammation, including blood urea nitrogen (A), creatinine (B), and high sensitivity C-reactive protein (C) in 147 patients (125 non-coagulopathy patients, 13 non-overt patients and 9 overt-DIC patients) from the day of admission to the day before coagulopathy onset (for coagulopathy patients) or the day of admission (for non-coagulopathy) to day 7. \* $P < 0.05$  for overt DIC patients vs non-coagulopathy patients; # $P < 0.05$  for non-overt DIC patients vs non-coagulopathy patients. BUN=blood urea nitrogen, CREA=creatinine, CRP=high sensitivity C-reactive protein.