

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Data of MPV (fL) for each study about PE.**

| <b>Author</b>    | <b>year</b> | <b>ne</b> | <b>emean</b> | <b>esd</b> | <b>nc</b> | <b>cmean</b> | <b>csd</b> |
|------------------|-------------|-----------|--------------|------------|-----------|--------------|------------|
| Sentürk, A.      | 2017        | 325       | 9.8          | 1.7        | 155       | 9.1          | 0.8        |
| Huang, J.        | 2015        | 70        | 9.91         | 1.4        | 75        | 8.84         | 1.68       |
| Sunnetcioglu, A. | 2014        | 67        | 8.4          | 1.2        | 53        | 8.4          | 1.1        |
| Talay, F.        | 2014        | 150       | 9.42         | 1.22       | 165       | 8.04         | 0.89       |
| Gunay, E.        | 2014        | 63        | 10.92        | 1.37       | 50        | 10.23        | 1.61       |
| Hilal, E.        | 2013        | 209       | 8            | 1.1        | 162       | 7.9          | 0.59       |
| Varol, E.        | 2011        | 107       | 9.6          | 1          | 70        | 8.1          | 0.8        |
| Kostrubiec, M.   | 2010        | 192       | 10           | 1.2        | 100       | 10.1         | 0.8        |
| In, E.           | 2015        | 108       | 8.9          | 1.1        | 79        | 8.4          | 0.8        |
| Sevuk, Utkan     | 2015        | 50        | 10           | 1.6        | 50        | 8            | 1.1        |
| Icli, Atilla     | 2015        | 98        | 9.9          | 0.6        | 98        | 7.9          | 0.7        |
| Moharamzadeh, P. | 2019        | 125       | 10.38        | 8.59       | 48        | 9.46         | 1.11       |
| Abd, E.          | 2019        | 50        | 8.9          | 1          | 20        | 7.5          | 1.2        |
| Çevik, I.        | 2014        | 61        | 9.73         | 1.19       | 67        | 10.13        | 0.94       |

ne/nc: the number of subjects in case or control group.

emean/cmean: the mean value of MPV in case or control group.

esd/csd: the standard deviation of MPV in case or control group.

**Supplementary Table 2. The subgroup analysis for studies about PE.**

| PE              | No.of studies | WMD (95%CI)       | Heterogeneity  |         |
|-----------------|---------------|-------------------|----------------|---------|
|                 |               |                   | I <sup>2</sup> | P-value |
| Region          |               |                   |                |         |
| W               | 11            | 0.76 (0.25-1.27)  | 97.6%          | <0.001  |
| NW              | 3             | 1.19 (0.82,1.56)  | 0.0%           | 0.665   |
| Testing time    |               |                   |                |         |
| ≤2h             | 6             | 0.92 (0.16-1.68)  | 97.9%          | <0.001  |
| NA              | 8             | 0.74 (0.29-1.18)  | 92.0%          | <0.001  |
| Analyzer        |               |                   |                |         |
| Sysmex          | 5             | 1.16 (0.71-1.60)  | 86.8%          | <0.001  |
| Beckman         | 5             | 0.65 (-0.33-1.62) | 98.7%          | <0.001  |
| Advia           | 2             | 0.20 (-0.39-0.78) | 90.8%          | 0.001   |
| NA              | 2             | 1.34 (0.78-1.89)  | 0.0%           | 0.568   |
| Smoker          |               |                   |                |         |
| Y               | 7             | 1.39 (0.95-1.82)  | 93.3%          | <0.001  |
| NA              | 7             | 0.19 (-0.11-0.49) | 82.1%          | <0.001  |
| Diabetics       |               |                   |                |         |
| Y               | 5             | 1.11 (0.32-1.90)  | 98.3%          | <0.001  |
| EX              | 2             | 1.53 (0.62-2.44)  | 83.7%          | 0.013   |
| NA              | 7             | 0.41 (-0.17-0.98) | 94.4%          | <0.001  |
| Type of disease |               |                   |                |         |
| S               | 3             | 1.43 (1.26-1.60)  | 0.0%           | 0.801   |
| N               | 3             | 0.69 (0.44-0.94)  | 50.0%          | 0.135   |
| NA              | 6             | 0.03 (-0.21-0.28) | 63.0%          | 0.019   |
| A               | 2             | 2.00 (1.83-2.17)  | 0.00%          | 1.000   |
| NOS             |               |                   |                |         |
| 5               | 2             | 0.49 (-1.28-2.25) | 96.0%          | <0.001  |
| 6               | 4             | 0.69 (-0.06-1.45) | 96.1%          | <0.001  |
| 7               | 6             | 1.11 (0.28-1.94)  | 98.1%          | <0.001  |
| 8               | 2             | 0.54 (0.29-0.78)  | 0.0%           | 0.55    |

W/NW: white or non-white country; Y: subjects contain smokers (or diabetics); EX: subjects with diabetics were excluded; A: all PE patients were combined with DVT; S: some PE patients were combined with DVT; N: No PE patients were combined with DVT; NA: not available.

**Supplementary Table 3. The sensitivity analysis for studies about PE: by deleting one of the studies and then analyzing the pooling effect and heterogeneity of the remaining papers.**

| Author           | No.of subjects | WMD (95%CI)      | Heterogeneity  |         |
|------------------|----------------|------------------|----------------|---------|
|                  |                |                  | I <sup>2</sup> | P-value |
| Sentürk, A.      | 2387           | 0.84 (0.34-1.35) | 97.1%          | <0.001  |
| Huang, J.        | 2722           | 0.81 (0.34-1.29) | 97.1%          | <0.001  |
| Sunnetcioglu, A. | 2747           | 0.90 (0.42-1.37) | 97.0%          | <0.001  |
| Talay, F.        | 2552           | 0.79 (0.30-1.27) | 97.0%          | <0.001  |
| Gunay, E.        | 2754           | 0.84 (0.37-1.32) | 97.1%          | <0.001  |
| Hilal, E.        | 2496           | 0.89 (0.41-1.36) | 96.5%          | <0.001  |
| Varol, E.        | 2690           | 0.78 (0.30-1.26) | 96.9%          | <0.001  |
| Kostrubiec, M.   | 2575           | 0.91 (0.45-1.37) | 96.6%          | <0.001  |
| Sevuk, Utkan     | 2767           | 0.74 (0.28-1.21) | 97.0%          | <0.001  |
| Icli, Atilla     | 2680           | 0.73 (0.34-1.11) | 94.7%          | <0.001  |
| In, E.           | 2671           | 0.86 (0.37-1.35) | 97.1%          | <0.001  |
| Moharamzadeh, P. | 2694           | 0.83 (0.36-1.29) | 97.1%          | <0.001  |
| Abd, E.          | 2797           | 0.79 (0.32-1.26) | 97.1%          | <0.001  |
| Çevik, I.        | 2739           | 0.93 (0.47-1.39) | 96.8%          | <0.001  |

**Supplementary Table 4. Data of MPV (fL) for each study about early death of PE.**

| Author         | year | ne | emean | esd  | nc   | cmean | csd  |
|----------------|------|----|-------|------|------|-------|------|
| Araz, O.       | 2017 | 73 | 8.8   | 1.2  | 367  | 7.7   | 0.9  |
| In, E.         | 2015 | 11 | 10.2  | 1.3  | 97   | 8.8   | 0.9  |
| Bozkus, F.     | 2015 | 11 | 8.78  | 0.19 | 78   | 7.59  | 0.35 |
| Hilal, E.      | 2013 | 17 | 8.6   | 1.1  | 192  | 7.9   | 1.1  |
| Kostrubiec, M. | 2010 | 18 | 10.7  | 1.4  | 174  | 9.9   | 1.2  |
| Akgullu, C.    | 2015 | 30 | 10.2  | 1.81 | 1.76 | 8.8   | 0.96 |
| Ertem, A       | 2016 | 34 | 10.64 | 1.14 | 230  | 8.66  | 1.41 |

ne/nc: the number of subjects in death or survivor group.

emean/cmean: the mean value of MPV in death or survivor group.

esd/csd: the standard deviation of MPV in death or survivor group.

**Supplementary Table 5. The subgroup analysis for studies about early death of PE.**

| Early death     | No.of studies | WMD (95%CI)      | Heterogeneity  |         |
|-----------------|---------------|------------------|----------------|---------|
|                 |               |                  | I <sup>2</sup> | P-value |
| Testing time    |               |                  |                |         |
| ≤2h             | 3             | 1.32 (0.65-1.98) | 85.5%          | 0.001   |
| NA              | 4             | 1.16 (0.94-1.38) | 19.2%          | 0.294   |
| Diabetics       |               |                  |                |         |
| Y               | 3             | 1.12 (0.81-1.42) | 41.1%          | 0.183   |
| NA              | 4             | 1.34 (0.80-1.87) | 78.3%          | 0.003   |
| Type of disease |               |                  |                |         |
| S               | 2             | 1.75 (1.19-2.31) | 52.0%          | 0.149   |
| N/NA            | 5             | 1.13 (0.98-1.27) | 10.8%          | 0.345   |
| NOS             |               |                  |                |         |
| 6               | 4             | 1.16 (1.05-1.29) | 0.00%          | 0.615   |
| 7               | 3             | 1.37 (0.57-2.17) | 84.9%          | 0.001   |

Y: subjects contain diabetics; S: some PE patients were combined with DVT;  
N/NA: No PE patients were combined with DVT or not available.

**Supplementary Table 6. The sensitivity analysis for studies about early death of PE: by deleting one of the studies and then analyzing the pooling effect and heterogeneity of the remaining papers.**

| Author         | No.of patients | WMD (95%CI)      | Heterogeneity  |         |
|----------------|----------------|------------------|----------------|---------|
|                |                |                  | I <sup>2</sup> | P-value |
| Araz, O.       | 1271           | 1.26 (0.9-1.62)  | 72.2%          | 0.003   |
| In, E.         | 1603           | 1.22 (0.92-1.52) | 72.8%          | 0.002   |
| Bozkus, F.     | 1622           | 1.24 (0.83-1.65) | 72.8%          | 0.003   |
| Hilal, E.      | 1502           | 1.31 (1.03-1.59) | 66.9%          | 0.010   |
| Kostrubiec, M. | 1519           | 1.28 (0.99-1.58) | 70.8%          | 0.004   |
| Akgullu, C.    | 1505           | 1.21 (0.91-1.52) | 72.7%          | 0.003   |
| Ertem, A       | 1447           | 1.15 (1.03-1.27) | 0.6%           | 0.412   |

**Supplementary Table 7. Risk factors for PE.**

| <b>Risk factors</b>         | <b>References</b> |
|-----------------------------|-------------------|
| Age                         | [1]               |
| Gender                      | [2, 3]            |
| Race                        | [4, 5]            |
| Thrombophilia               | [6, 7]            |
| Hospitalization             | [8]               |
| Surgery                     | [9]               |
| Cancers                     | [10–12]           |
| Obesity                     | [13, 14]          |
| Estrogen                    | [15]              |
| Prior history of thrombosis | [16, 17]          |
| Central venous catheters    | [18]              |
| Cardiovascular disease      | [19, 20]          |
| Pregnancy                   | [21]              |
| Immunological disease       | [22–24]           |
| Diabetes                    | [25]              |

Abbreviations: PE (Pulmonary embolism), MPV (Mean platelet volume), SD (Standard deviation), CI (Confidence intervals), EDTA (Ethylenediaminetetraacetic acid), NOS (Newcastle–Ottawa Scale), WMD (Weighted mean differences),  $I^2$  (I-square).

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