

Supplementary Table 1 Logistic regression results adjusted for matching variables.

Variable	Study Group: Jehovah's Witnesses (n = 26)	Study Group: Controls (n = 78)	OR (95% CI)	p-value
CPB duration (hours) ^a	2.04 (0.61)	2.11 (0.54)	0.631 (0.200–1.617)	0.313
Intraoperative bleeding (mL) ^a	241.76 (105.00)	383.39 (230.51)	0.552 (0.270–0.989)	0.046 ^b
Intraoperative transfusion	0 (0.0%)	14 (17.9%)	0.056 (0.000–0.707)	0.020 ^b
Postoperative death	0 (0.0%)	3 (3.8%)	0.454 (0.003–5.085)	0.575
Postoperative Hb (g.dL ⁻¹)	11.37 (1.26)	10.49 (1.70)	1.502 (1.033–2.280)	0.032 ^b
Postoperative Hct (%)	34.77 (3.84)	31.65 (4.87)	1.189 (1.049–1.374)	0.006 ^c
Postoperative ICU stay (days) ^a	4.50 (3.68)	4.59 (4.58)	1.094 (0.520–2.243)	0.807
Postoperative myocardial infarction	1 (3.8%)	1 (1.3%)	2.569 (0.180–35.897)	0.453
Postoperative renal dysfunction	7 (26.9%)	29 (37.2%)	0.542 (0.176–1.523)	0.251
Postoperative stroke	0 (0.0%)	2 (2.6%)	0.680 (0.005–10.712)	0.808
Postoperative transfusion	0 (0.0%)	10 (12.8%)	0.101 (0.001–0.884)	0.035 ^b

Data: mean [SD] for continuous variables, n (%) for categorical. OR, Odds Ratio; CI, Confidence Interval. All models adjusted for matching variables (age, sex, preoperative hemoglobin).

^a Log transformation applied when either group showed non-normality (Shapiro-Wilk $p < 0.05$).
p-values are uncorrected; ^b $p < 0.05$; ^c $p < 0.01$.

Supplementary Table 2 Logistic regression results adjusted for matching variables + ASA status.

Variable	Study Group: Jehovah's Witnesses (n = 26)	Study Group: Controls (n = 78)	OR (95% CI)	p-value
CPB Duration (hours) ^a	2.04 (0.61)	2.11 (0.54)	0.644 (0.204–1.695)	0.349
Intraoperative Bleeding (mL) ^a	241.76 (105.00)	383.39 (230.51)	0.568 (0.273–1.027)	0.061
Intraoperative Transfusion	0 (0.0%)	14 (17.9%)	0.096 (0.001–1.028)	0.053
Postoperative Death	0 (0.0%)	3 (3.8%)	0.367 (0.003–4.128)	0.468
Postoperative Hb (g.dL ⁻¹)	11.37 (1.26)	10.49 (1.70)	1.478 (1.011–2.256)	0.044 ^b
Postoperative Hct (%)	34.77 (3.84)	31.65 (4.87)	1.187 (1.044–1.375)	0.008 ^c
Postoperative ICU Stay (Days) ^a	4.50 (3.68)	4.59 (4.58)	1.114 (0.545–2.236)	0.762
Postoperative Myocardial Infarction	1 (3.8%)	1 (1.3%)	2.164 (0.159–30.130)	0.531
Postoperative Renal Dysfunction	7 (26.9%)	29 (37.2%)	0.562 (0.188–1.541)	0.268
Postoperative Stroke	0 (0.0%)	2 (2.6%)	0.551 (0.004–8.439)	0.701
Postoperative Transfusion	0 (0.0%)	10 (12.8%)	0.069 (0.001–0.650)	0.014 ^b

Data: mean [SD] for continuous variables, n (%) for categorical. OR, Odds Ratio; CI, Confidence Interval. All models adjusted for matching variables (age, sex, preoperative hemoglobin) + ASA_status.

^a Log transformation applied when either group showed non-normality (Shapiro-Wilk $p < 0.05$). p-values are uncorrected; ^b $p < 0.05$; ^c $p < 0.01$.

Supplementary Table 3 Logistic regression results adjusted for matching variables + diabetes.

Variable	Study Group: Jehovah's Witnesses (n = 26)	Study Group: Controls (n = 78)	OR (95% CI)	p-value
CPB Duration (hours) ^a	2.04 (0.61)	2.11 (0.54)	0.576 (0.188–1.528)	0.244
Intraoperative Bleeding (mL) ^a	241.76 (105.00)	383.39 (230.51)	0.553 (0.271–0.993)	0.047 ^b
Intraoperative Transfusion	0 (0.0%)	14 (17.9%)	0.077 (0.001–0.774)	0.026 ^b
Postoperative Death	0 (0.0%)	3 (3.8%)	0.426 (0.003–4.678)	0.539
Postoperative Hb (g.dL ⁻¹)	11.37 (1.26)	10.49 (1.70)	1.502 (1.033–2.286)	0.033 ^b
Postoperative Hct (%)	34.77 (3.84)	31.65 (4.87)	1.193 (1.051–1.380)	0.005 ^c
Postoperative ICU Stay (Days) ^a	4.50 (3.68)	4.59 (4.58)	1.160 (0.567–2.328)	0.677
Postoperative Myocardial Infarction	1 (3.8%)	1 (1.3%)	2.781 (0.209–37.050)	0.403
Postoperative Renal Dysfunction	7 (26.9%)	29 (37.2%)	0.620 (0.209–1.700)	0.359
Postoperative Stroke	0 (0.0%)	2 (2.6%)	0.601 (0.004–9.494)	0.746
Postoperative Transfusion	0 (0.0%)	10 (12.8%)	0.099 (0.001–0.859)	0.033 ^b

Data: mean [SD] for continuous variables, n (%) for categorical. OR, Odds Ratio; CI, Confidence Interval. All models adjusted for matching variables (age, sex, preoperative hemoglobin) + Diabetes.

^a Log transformation applied when either group showed non-normality (Shapiro-Wilk $p < 0.05$). p-values are uncorrected; ^b $p < 0.05$; ^c $p < 0.01$.

Supplementary Table 4 Logistic regression results adjusted for matching variables + hypertension.

Variable	Study Group: Jehovah's Witnesses (n = 26)	Study Group: Controls (n = 78)	OR (95% CI)	p-value
CPB Duration (hours) ^a	2.04 (0.61)	2.11 (0.54)	0.585 (0.187–1.535)	0.252
Intraoperative Bleeding (mL) ^a	241.76 (105.00)	383.39 (230.51)	0.555 (0.268–0.998)	0.049 ^b
Intraoperative Transfusion	0 (0.0%)	14 (17.9%)	0.086 (0.001–0.854)	0.033 ^b
Postoperative Death	0 (0.0%)	3 (3.8%)	0.341 (0.002–3.926)	0.437
Postoperative Hb (g.dL ⁻¹)	11.37 (1.26)	10.49 (1.70)	1.602 (1.088–2.479)	0.016 ^b
Postoperative Hct (%)	34.77 (3.84)	31.65 (4.87)	1.211 (1.063–1.407)	0.003 ^c
Postoperative ICU Stay (Days) ^a	4.50 (3.68)	4.59 (4.58)	1.153 (0.560–2.326)	0.692
Postoperative Myocardial Infarction	1 (3.8%)	1 (1.3%)	3.017 (0.222–41.177)	0.373
Postoperative Renal Dysfunction	7 (26.9%)	29 (37.2%)	0.610 (0.210–1.635)	0.331
Postoperative Stroke	0 (0.0%)	2 (2.6%)	0.626 (0.004–9.690)	0.765
Postoperative Transfusion	0 (0.0%)	10 (12.8%)	0.085 (0.001–0.740)	0.021 ^b

Data: mean [SD] for continuous variables, n (%) for categorical. OR, Odds Ratio; CI Confidence Interval. All models adjusted for matching variables (age, sex, preoperative hemoglobin) + Hypertension.

^a Log transformation applied when either group showed non-normality (Shapiro-Wilk $p < 0.05$). p-values are uncorrected; ^b $p < 0.05$; ^c $p < 0.01$.

Supplementary Table 5 Logistic regression results adjusted for matching variables + heart failure.

Variable	Study Group: Jehovah's Witnesses (n = 26)	Study Group: Controls (n = 78)	OR (95% CI)	p-value
CPB Duration (hours) ^a	2.04 (0.61)	2.11 (0.54)	0.628 (0.206–1.629)	0.315
Intraoperative Bleeding (mL) ^a	241.76 (105.00)	383.39 (230.51)	0.554 (0.272–0.99)	0.046 ^b
Intraoperative Transfusion	0 (0.0%)	14 (17.9%)	0.083 (0.001–0.806)	0.028 ^b
Postoperative Death	0 (0.0%)	3 (3.8%)	0.436 (0.003–4.891)	0.555
Postoperative Hb (g.dL ⁻¹)	11.37 (1.26)	10.49 (1.70)	1.485 (1.024–2.247)	0.036 ^b
Postoperative Hct (%)	34.77 (3.84)	31.65 (4.87)	1.187 (1.047–1.371)	0.006 ^c
Postoperative ICU Stay (Days) ^a	4.50 (3.68)	4.59 (4.58)	1.131 (0.539–2.324)	0.74
Postoperative Myocardial Infarction	1 (3.8%)	1 (1.3%)	2.644 (0.184–36.033)	0.438
Postoperative Renal Dysfunction	7 (26.9%)	29 (37.2%)	0.614 (0.212–1.645)	0.338
Postoperative Stroke	0 (0.0%)	2 (2.6%)	0.646 (0.004–9.973)	0.781
Postoperative Transfusion	0 (0.0%)	10 (12.8%)	0.098 (0.001–0.862)	0.033 ^b

Data: mean [SD] for continuous variables, n (%) for categorical. OR, Odds Ratio; CI, Confidence Interval. All models adjusted for matching variables (age, sex, preoperative hemoglobin) + Heart_Failure_EF_lt_50.

^a Log transformation applied when either group showed non-normality (Shapiro-Wilk $p < 0.05$). p-values are uncorrected; ^b $p < 0.05$; ^c $p < 0.01$.