Table S1 Clinical characteristics of 190 patients with aSAH requiring MV included in this study, in relation to death at the time of follow-up

Variable	Survivors (n=66)	Non to survivors (n=124)	P
Age (years)	59 (52 to 67)	63 (54 to 69)	0.181
Male gender	27 (40.9)	48 (38.7)	0.768
Delay between onset and ICU admission (days)	0.7 (0.4 to 1.0)	0.4 (0.3 to 1.0)	0.002
Medical history			
Hypertension	41 (62.1)	62 (50.0)	0.110
Diabetes	8 (12.1)	14 (11.3)	0.865
CHD	3 (4.5)	11 (8.9)	0.427
CVD	5 (7.6)	7 (5.6)	0.835
Clinical features			
GCS score	8 (6 to 14)	7 (4 to 10)	0.026
Hunt-Hess grade	4 (3 to 4)	4 (3 to 4)	0.036
mFisher score	4 (2 to 4)	4 (3 to 4)	0.225
WFNS score	4 (2 to 5)	5 (4 to 5)	0.003
SOFA score	4 (3 to 6)	4 (3 to 6)	0.722
APS score	18 (13 to 21)	16 (12 to 20)	0.303
Radiographic findings			
Anterior circulation position	54 (81.8)	100 (80.6)	0.844
Multiple aneurysms (n>1)	12 (16.0)	17 (14.8)	0.414
Intracerebral hematoma	6 (9.2)	22 (18.2)	0.104
Intraventricular hematoma	51 (78.5)	97 (80.2)	0.783
SEBES score	2 (2 to 4)	2 (2 to 4)	0.843
Evans' index	0.28 (0.26 to 0.30)	0.28 (0.26 to 0.31)	0.499
Treatment			
Aneurysm treatment			0.000
No obliteration performed	1 (1.5)	28 (22.6)	
Clipping	24 (36.4)	43 (34.7)	
Coiling	41 (62.1)	53 (42.7)	
Decompressive craniotomy	19 (28.8)	34 (27.4)	0.841
External ventricular drain	32 (48.5)	78 (62.9)	0.055
Tracheotomy	40 (60.6)	55 (44.4)	0.033
Length of ICU stay (days)	7 (4 to 12)	3 (2 to 6)	0.000

Values are expressed as the median (interquartile range 25–75%) or n (%). aSAH, aneurysmal subarachnoid hemorrhage; MV, mechanical ventilation; CHD, coronary heart disease; CVD, cerebral vascular disease; GCS, Glasgow Coma Scale; WFNS, World Federation of Neurosurgical Societies; mFisher, modified Fisher score; SOFA, Sequential Organ Failure Assessment; SEBES, subarachnoid hemorrhage early brain edema score; APS, acute physiology scoring; ICU, intensive care unit.

Table S2 Laboratory characteristics of 190 patients with aSAH requiring MV included in the study, in relation to death at the time of follow-up

Variable	Normal range	Total (n=190)	Survivors (n=66)	Non to survivors (n=124)	P
Blood routine test					
WBC	(3.5 to 9.5)×10⁹/L	14.3 (10.4 to 18.0)	13.8 (10.0 to 18.6)	14.5 (10.5 to 17.8)	0.617
NEU	(1.8 to 6.3)×10⁹/L	12.6 (9.1 to 16.2)	12.1 (8.0 to 16.7)	13.0 (9.3 to 16.2)	0.422
LYM	(1.1 to 3.2)×10⁷/L	0.9 (0.7 to 1.3)	1.0 (0.7 to 1.5)	0.9 (0.6 to 1.3)	0.039
RBC	(4.3 to 5.8)×10¹²/L	4.4 (4.0 to 4.8)	4.5 (4.1 to 4.8)	4.3 (3.9 to 4.7)	0.101
PLT	(125 to 350)×10⁹/L	221 (180 to 257)	225 (180 to 261)	221 (179 to 255)	0.553
Liver and kidney function indices					
TBIL	0 to 23.0 mol/L	11.2 (8.5 to 15.1)	11.8 (8.5 to 11.4)	10.8 (8.5 to 15.1)	0.530
DBIL	0 to 4.0 mol/L	3.1 (2.3 to 4.5)	3.2 (2.3 to 4.4)	3 (2.4 to 4.7)	0.777
ALT	7.0 to 40.0 U/L	19.3 (14.9 to 30.3)	19.3 (15.7 to 29.4)	19.3 (14.4 to 30.5)	0.757
AST	13.0 to 35.0 U/L	24.5 (19.6 to 35.5)	22.3 (17.1 to 31.9)	26.1 (20.3 to 36.1)	0.079
A/G	1.5 to 2.5	1.4 (1.3 to 1.6)	1.4 (1.3 to 1.6)	1.4 (1.3 to 1.6)	0.959
Cr	57.0 to 111.0 mol/L	58.6 (48.9 to 76.1)	59.4 (51.9 to 78.4)	57.6 (47.8 to 71.6)	0.497
CysC	0 to 1.03 mg/L	0.72 (0.59 to 0.87)	0.72 (0.6 to 0.91)	0.72 (0.57 to 0.85)	0.466
Myocardial injury markers					
CKMB	0 to 24.0 U/L	17.5 (13.0 to 25.3)	17.8 (12.3 to 27.0)	17.5 (13 to 24.9)	0.717
hsTnT	0 to 40.0 ng/L	22.5 (9.0 to 132.5)	22 (8.3 to 180.8)	25.5 (9.0 to 132.5)	0.903
BNP	<300 pg/mL	325 (106 to 1353)	329 (130 to 1437)	325 (96 to 1301)	0.987
Myo	17.4 to 105.7 ng/mL	74.9 (35.2 to 175.5)	67.9 (37.2 to 161.6)	75.7 (32.5 to 180.2)	0.908
LDH	120.0 to 250.0 U/L	235.0 (199.0 to 283.5)	248.0 (200.0 to 268.0)	231.5 (196.5 to 288.3)	0.762
Coagulation function test					
PT	11.0 to 13.7 s	13.3 (12.9 to 14)	13.25 (13.0 to 13.8)	13.5 (12.8 to 14.1)	0.544
APTT	31.5 to 43.5 s	31.6 (29.1 to 34.1)	32.5 (29.5 to 35.6)	31.4 (29.0 to 34.0)	0.338
D to Dimer	0.01 to 0.55 mg/L	3.21 (1.58 to 6.34)	3.51 (1.50 to 7.57)	3.03 (1.61 to 5.93)	0.653
ATIII	80 to 120%	102 (91 to 111)	103 (93 to 109)	102 (90 to 112)	0.637
Electrolytes and glucose					
pCO₂	35.0 to 48.0 mmHg	36.0 (30.0 to 40.0)	36.0 (30.0 to 40.0)	35.5 (29.3 to 40.0)	0.660
Ca²⁺	1.15 to 1.35 mmol/L	1.07 (1.04 to 1.10)	1.08 (1.05 to 1.12)	1.07 (1.03 to 1.10)	0.007
Lac	0.5 to 2.2 mmol/L	2 (1.2 to 3.5)	2 (1.1 to 4.0)	2.1 (1.2 to 3.2)	0.678
BE (B)	−2.0 to 3.0 mmol/L	0.1 (−2.3 to 1.9)	0.3 (−2.2 to 2.1)	−0.1 (−2.5 to 1.6)	0.709
Glu	3.9 to 6.1 mmol/L	8.8 (7.2 to 11.0)	8.2 (7.0 to 10.2)	9.3 (7.3 to 11.9)	0.063
K⁺	3.5 to 5.3 mmol/L	3.7 (3.4 to 3.9)	3.6 (3.3 to 3.9)	3.7 (3.4 to 4.0)	0.112
Na⁺	137.0 to 147.0 mmol/L	139.5 (137.4 to 141.8)	139.9 (137.7 to 141.8)	139.1 (137.1 to 141.9)	0.479
hsCRP	0.0 to 3.0 mg/L	13.4 (4.5 to 49.6)	13.5 (5.1 to 48.0)	13.2 (4.1 to 51.9)	0.785

Values are expressed as the median (interquartile range 25–75%). aSAH, aneurysmal subarachnoid hemorrhage; MV, mechanical ventilation; WBC, white blood cell; NEU, neutrophil; LYM, lymphocyte; RBC, red blood cell; PLT, blood platelet; TBIL, total bilirubin; DBIL, direct bilirubin; ALT, alanine transaminase; AST, aspartate transaminase; A/G, albumin/globulin ratio; Cr, creatinine; CysC, cystatin C; CKMB, creative kinase MB; hsTnT, hypersensitive troponin T; BNP, brain natriuretic peptide; Myo, myoglobin; LDH, lactate dehydrogenase; PT, prothrombin time; APTT, activated partial thromboplastin time; ATIII, antithrombin III; Lac, lactate; BE (B), buffer excess; Glu, glucose; hsCRP, hypersensitive C-reactive protein.

Table S3 Cox regression analyses of the risk factors for death at the time of follow-up in patients with aSAH requiring MV

Variable	Univariable analysis		Multivariable analysis	
	HR (95% CI)	P	HR (95% CI)	P
Ionized calcium, per 0.01 mmol/L increase	0.95 (0.91, 0.98)	0.005	0.95 (0.92, 0.99)	0.010
Glucose, per 1 mmol/L increase	1.06 (1.01, 1.10)	0.011	–	–
GCS score	0.94 (0.90, 0.98)	0.009	–	–
Hunt-Hess grade	1.28 (1.04, 1.57)	0.021	–	–
WFNS score	1.24 (1.05, 1.46)	0.011	1.26 (1.05, 1.51)	0.015
Embolization (ref = clipping)	0.26 (0.17, 0.40)	0.000	0.33 (0.21, 0.53)	0.000
Tracheotomy	0.51 (0.35, 0.72)	0.000	0.47 (0.32, 0.69)	0.000

The multivariable model contains WFNS score, embolization, tracheotomy, ionized calcium, and glucose. aSAH, aneurysmal subarachnoid hemorrhage; MV, mechanical ventilation; OR, odds ratio; CI, confidence interval; WFNS, World Federation of Neurosurgical Societies.