Table 1. Characteristics of Included Trials

Author(year)	Study design	Population (n)	Age (years)
Zhi et al. (2003)	RCT	396	15-65
Gal et al. (2002)	Prospective Study	30	NR
Polderman et al. (2002)	Prospective Study	136	NR
Clifton et al. (2001)	RCT	392	16-65
Adelson et al. (2013)[a]	RCT	77	0-17
Li et al. (2009)[a]	RCT	22	0.5-9
Hutchison et al. (2008)[a]	RCT	225	1-17
Adelson et al. (2005)[a]	RCT	75	0-17
Biswas et al. (2002)[a]	RCT	21	0-17

a:Pediatric trial.

GCS, Glasgow Coma Scale; hypo, hypothermia; ICP, intracranial pressure; NR, not reported;

RCT, randomized controlled trial; temp, temperature.

Author(year)	Study design	Population (n)	Age (years)
Suehiro et al. (2014)	RCT	401	NR
Zhao et al. (2011)	RCT	81	>16
Clifton et al. (2011)	RCT	97	16-45
Yan et al. (2010)	RCT	148	18-64
Lee et al. (2010)	RCT	45	12-70
Harris et al. (2009)	RCT	25	>18
Qiu et al. (2007)	RCT	80	19-65
Liu et al. (2006)	RCT	66	19-65
Qui et al. (2006)	Prospective Study	90	19-65
Inamasu et al. (2006)	Prospective Study	23	NR

Therapy incl. time interval and temperature	Limitations/comments
Systemic cooling to rectal temp 32–33^{0}C for 1–7 days. Rewarmed 1^{0}C every 4 hours when ICP was normal for 24 hours. (全身降温使直肠温度在1-7d达到32–33^{0}C， 每4h复温1^{0}C直到ICP值24h内正常)	Unclear randomization. Mean GCS was higher in the control group. （不清楚随机化，对照组平均GCS更高）
Systemic cooling to core temp 34^{0}C for 72 hours. Slowly rewarmed (rate NR). （全身降温使核心体温72h达到34^{0}C， 缓慢复温（未报道））	No randomization. Small sample size. No inclusion or exclusion criteria （无随机化，样本小，无纳入/排出标准）
Systemic cooling to 32^{0}C until ICP remained 20mmHg for 24 hours (24 hours to 21 days) Then rewarmed 1^{0}C per 12 hours. （全身降温达到34^{0}C使ICP24h维持在 20mmHg，每12h复温1^{0}C ）	No randomization. The hypothermia and control groups not fully comparable. （无随机化，低温组与对照组无可比性）
Systemic cooling to bladder temp 33^{0}C for 48 hours Rewarming at maximum 0.5^{0}C per 2-hour period. （全身降温使膀胱体温48h达到34^{0}C， 每2h复温最多0.5^{0}C）	.Multicenter study. （多中心研究）
Systemic cooling to rectal or brain temp 32–33^{0}C for 48–72 hours. Rewarmed 0.5–1^{0}C every 12–24 hours. （全身降温使直肠/脑部体温48-72h达到32-33^{0}C， 每12-24h复温0.5-1^{0}C）	Multicenter study. The study was terminated early after a futility analysis. Short follow-up time. Patients with GCS 3 were excluded. （多中心研究，研究因无意义分析提前终止。 随访时间短,GCS 3患者被排除在外。）

Selective brain cooling to intracranial temp 34.5 ±0.2^{0}C for 72 hours. Rewarming rate NR. （选择性头部降温使颅内温度72h达 34.5 ±0.2^{0}C，复温率未提及 ）	No long-term follow-up. Small sample size. （随访时间短，样本小）
Systemic cooling to esophageal temp 32.5± 0.5^{0}C for 24 hours. Rewarmed 0.5^{0}C every 2 hours. （全身降温使食管温度24h达 32.5± 0.5^{0}C，每2h复温0.5^{0}C）	High-quality multicenter study.Patients with acute isolated epidural hematoma were excluded. （高质量多中心研究。急性硬膜外血肿患者被排出标准）
Systemic cooling to rectal temp 32–33^{0}C for 48 hours. Rewarmed 1^{0}C every 3–4 hours. （全身降温使直肠温度48h达 32.-33^{0}C，每3-4h复温1^{0}C）	One multicenter trial (n = 48) and one parallel single-institution trial (n = 27) with different inclusion criteria. （一个为多中心试验，一个为平行单一试验，不同的纳入标准）
Systemic cooling to rectal temp 32–34^{0}C for 48 hours. Rewarming at maximum 1^{0}C / hour. (全身降温使直肠温度48h达 32.-34^{0}C，每h复温最多1^{0}C)	Small sample size. （样本小）

Therapy incl. time interval and temperature	Limitations/comments
Therapy and time interval NR. Temp < 35^0C In all clinical centers (治疗和间隔时间未提及，所有实验中心体温均< 35^0C)	Multicenter study based on data from the Japan Neurotrauma Data Bank. Mean age significantly lower in hypothermia groups. The control and hypothermia groups not comparable. Outcomes assessed at discharge. No follow-up time. （多中心研究数据来源于日本神经创伤数据库，低温组平均年龄显著年轻化，低温组与对照组不可比，出院时有评价，但无随访时间）
Systemic cooling to rectal temp 33^0C for 72 hours. Spontaneously rewarmed. （全身降温使直肠体温在72h达33^0C，自然复温）	Unclear randomization. Short follow-up time.Complications NR. （不清楚随机化，随访时间短，未提及并发症）
Systemic cooling to 33^0C for 48 hours. Rewarmed by 0.5^0C every 2 hours. （全身降温使体温在48h达33^0C，每2h复温0.5^0C ）	High-quality multicenter study. Did not include patients > 45 years. （高质量的多中心研究，但未包括年龄> 45 y的患者）
Systemic cooling to rectal temp 32–34^0C for 3–5 days. Spontaneously rewarmed. （全身降温使直肠体温在3-5d达32-34^0C，自然复温）	Significance and p-values for mortality and outcome NR. Complications NR. （死亡率的p值和意义、结果、并发症均未提及）
Systemic cooling to brain temp 33–35^0C. （全身降温使体温达33-35^0C）	Small sample size. Cooling duration and rewarming rate NR. All patients with GCS 3 were excluded. （样本小，降温时间和复温率未提及，GCS 3的患者被排出标准）
Selective brain cooling to intracranial temp 33^0C for 24 hours. Rewarmed by 0.5^0C. every 3 hours for 24 hours. （选择性头部降温使颅内温度 在24h达33^0C，24h内每3h复温0.5^0C.	Small sample size. The target intracranial temp of 33^0C was not maintained.Short follow-up time （样本小，颅内 33^0C的目标值温度未维持，随访时间短）

Systemic cooling to brain temp 33–35^{0}C for 4 days. Spontaneously rewarmed to baseline. （全身降温使头部温度在4d达33–35^{0}C，自然复温至基础体温）	All patients had a craniotomy before treatment. Significance and p-values for mortality NR. （所有患者在治疗前均行开颅手术，死亡率的p值和意义未提及）
Local brain cooling group: brain temp 33–35^{0}C for 72 hours. Systemic cooling group: rectal temp 33–35^{0}C for 72 hours. Spontaneously rewarmed. （局部降温组：脑部温度72h达33-35^{0}C；全身降温组：直肠温度72h达33-35^{0}C，自然复温）	Small sample size. （样本小）
Selective brain cooling to brain temp 33–35^{0}C for 72 hours. Spontaneous rewarming. （选择性头部降温使温度72h达33–35^{0}C，自然复温）	No randomization. （无随机化）
Systemic cooling to brain temp 34–35^{0}C for 3 days. Rewarmed 1^{0}C/day. （全身降温使头部温度3d达 34–35^{0}C，每天复温1^{0}C）	Retrospective study with historical controls. Small sample size. Only patients with GCSp6. Two patients < 18 years. （前瞻性研究与回顾性研究样本小，患者均为GCS 6，2例患者年龄< 18 y）