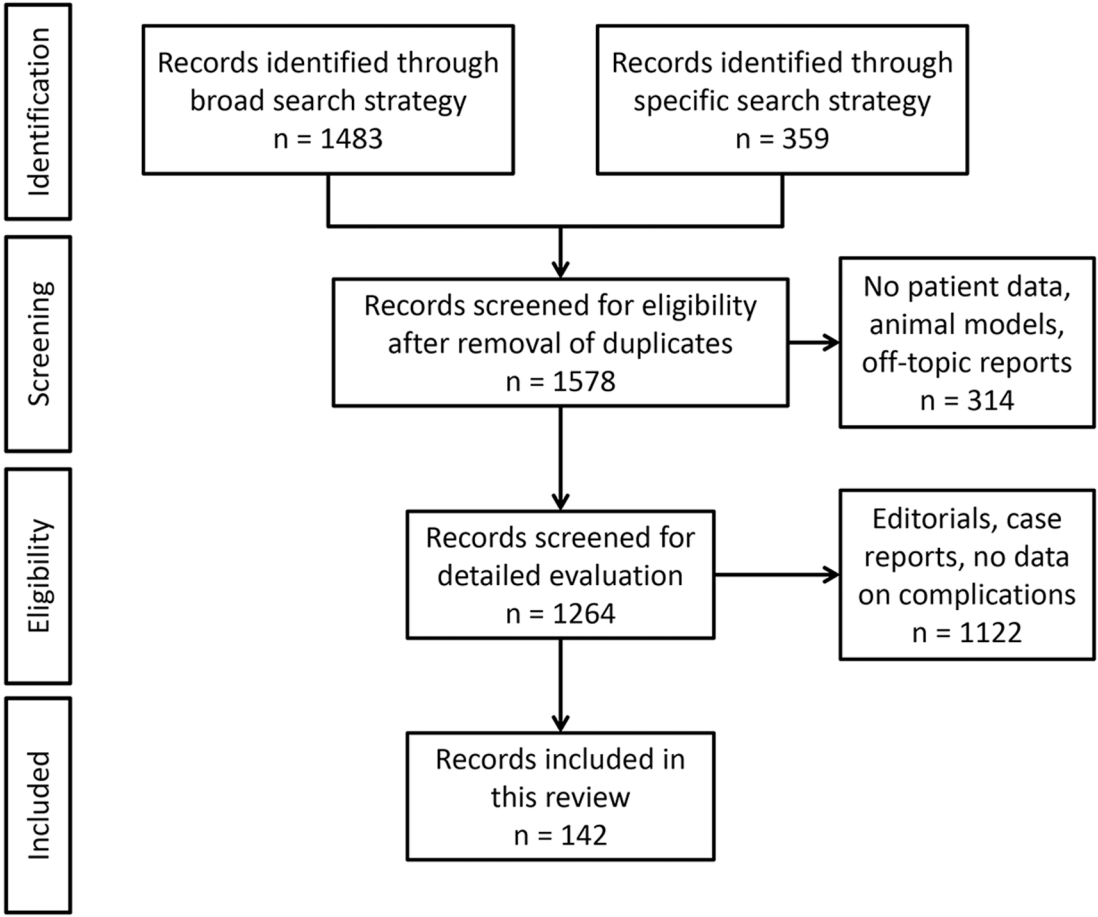
Identification
Screening
Eligibility
Included
Records identified through broad search strategy n = 1483
Records identified through specific search strategy n = 359
Records screened for eligibility after removal of duplicates n = 1578
No patient data, animal models, off-topic reports n = 314
Records screened for detailed evaluation n = 1264
Editorials, case reports, no data on complications n = 1122
Records included in this review n = 142

TABLE S1: Complications of Decompressive Craniectomy [a]

Authors and Year	Complication [b]	Indication for DC [b]	Reported Frequency [c]	Overall Frequency [c]
Hemorrhagic Complications				
Gouello et al. 2014 [18] Honeybul et al., 2014 [20] Wang et al., 2014 [23] Huang et al., 2013 [22] Al-Jishi et al., 2011 [36] Cooper et al., 2011 [14] Guresir et al., 2011 [19] Honeybul et al., 2011 [38] Huang et al., 2011 [21] Akyuz et al., 2010 [39] Qiu et al., 2009 [15] Flint et al. 2008 [17]	New Ipsilateral Hematoma	TBI	12.9% (188/1455)	10.2% (236/2297)
Fischer et al., 2011 [40] Guresir et al., 2011 [19]		Stroke	6.5% (7/108)	
Zhang et al., 2013 [34] Fung et al., 2012 [16] Guresir et al., 2011 [19]		ICH	6.3% (5/80)	
Guresir et al., 2011 [19]		SAH	2.5% (2/79)	
Woertgen et al., 2006 [41]		SDH	1.1% (2/180)	
Oladunjoye et al., 2013 [13] Missori et al., 2013 [33] Im et al., 2012 [35] Guresir et al., 2011 [19] Kumar et al., 2011 [37] Hitchings et al., 2010 [43]		Numerous	8.1% (32/395)	
Huang et al., 2013 [22] Huang et al., 2011 [21] Wen et al., 2011 [24] Ban et al., 2010 [27] Stephens et al., 2010 [66] Yang et al., 2008 [25] Flint et al. 2008 [17] Matsuno et al., 2003 [26]	New Contralateral/Remote Hematoma	TBI	8.6% (63/732)	8.6% (63/732)
Huang et al., 2013 [22] Chen et al., 2012 [54] Qiu et al., 2012 [50] Sturiale et al., 2012 [49] Ban et al., 2010 [27] Aarabi et al., 2009 [51] Qiu et al., 2009 [15] Williams et al., 2009 [28] Flint et al. 2008 [17]	Hemorrhagic Progression of a Contusion	TBI	12.6% (163/1256)	12.6% (164/1300)

Huang et al., 2008 [52] Li et al., 2008 [55] Chibbaro et al., 2007 [53] Aarabi et al., 2006 [29]				
Aaron et al., 2013 [3]		Other	2.7% (1/44)	
Creutzfeld et al., 2014 [60] Raffiq et al., 2014 [58] Schuss et al., 2013 [61] Shao et al., 2013 [59] Kenning et al., 2012 [30] Lee et al., 2012 [31] Takeuchi et al., 2012 [56] Wirtz et al., 1997 [57]	Hemorrhagic Transformation	Stroke	23.7% (123/519)	23.7% (123/519)
Infectious, Inflammatory and Wound Healing Complications				
Gouello et al. 2014 [18] Mezue et al., 2013 [63] Cooper et al., 2011 [14] De Bonis et al., 2011 [65] Huang et al., 2011 [21] Huang et al., 2008 [52] Stephens et al., 2010 [66] Chibbaro et al., 2007 [53]	Superficial Complications	TBI	6.9% (45/649)	8.1% (81/1003) Adult
Madhugiri et al., 2011 [72] Kan et al., 2006 [71]		Pediatrics	6.5% (4/62)	
Adamo et al., 2009 [73]		Neonatal TBI	42.8% (3/7)	
Cho et al., 2003 [69] Koh et al., 2000 [70]		Stroke	3.8% (2/52)	
Sughrue et al., 2011 [62]		Trauma, ICH	22.8% (29/127)	
Godil et al., 2011 [64]		Numerous	3.4% (3/89)	
Aaron et al., 2013 [3] Malmivaara et al., 2011 [12]		Other	2.3% (2/86)	
Qiu et al., 2012 [50] Cooper et al., 2011 [14] Bao et al., 2010 [74] Qiu et al., 2009 [15] Howard et al., 2008 [75] Yang et al., 2008 [25] Jiang et al., 2005 [76]	Deep Complications	TBI	5.1%, (48/943)	5.1% (59/1160) Adult
Perez et al., 2011 [77] Kan et al., 2006 [71]		Peds TBI	4.1% (2/49)	
Adamo et al., 2009 [73]		Neonatal TBI	42.9% (3/7)	
Vahedi et al., 2007 [79] Mori et al., 2004 [78]		Stroke	5.9% (7/119)	
Hitchings et al. 2010 [43]		Numerous	5.6% (3/54)	
Aaron et al., 2013 [3]		Other	2.3% (1/44)	

Cooper et al., 2011 [14] Huang et al., 2011 [21] Malmivaara et al., 2011 [11] Akyuz et al., 2010 [39] De Bonis et al., 2010 [83] Paci et al., 2009 [84] Morgalla et al., 2008 [85] Albanese et al., 2003 [86]	Meningitis/Ventriculitis	TBI	4.0% (25/628)	6.1% (63/1035) Adult
Perez et al., 2011 [77] Jagannathan et al., 2007 [82]		Peds TBI	8.1% (3/37)	
Takeuchi et al., 2013 [87] Takeuchi et al., 2012 [56] Pfefferkorn et al., 2009 [89] Fandino et al., 2004 [80] Koh et al., 2000 [70]		Stroke	8.1% (14/173)	
Takeuchi et al., 2013 [81] Takeuchi et al., 2013 [88] Sughrue et al., 2011 [62]		Trauma, ICH	12.8% (19/148)	
Malmivaara et al., 2011 [12]		Numerous	9.5% (4/42)	
Aaron et al., 2013 [3]		Other	2.3% (1/44)	
Kung et al., 2012 [92] Chun et al., 2011 [93] Guresir et al., 2011 [19] Huang et al., 2011 [21] Ban et al., 2010 [27] Qiu et al., 2009 [15] Albanese et al., 2003 [86]	Wound Healing Disturbance/Abscess not Otherwise Specified	TBI	6.4%% (32/500)	8.4% (97/1151)
Schuss et al., 2013 [61] Kenning et al., 2012 [30] Guresir et al., 2011 [19]		Stroke	13.7% (29/212)	
Guresir et al., 2011 [19]		SAH	3.8% (3/79)	
Hayes et al., 2013 [91] Guresir et al., 2011 [19]		ICH	4.3% (3/41)	
Sughrue et al., 2011 [62]		Trauma, ICH	9.4% (12/127)	
Oladunjoye et al., 2013 [13] Guresir et al., 2011 [19] Kumar et al., 2011 [37]		Numerous	8.1% (12/185)	
Raza et al., 2014 [90]		Other	85.7% (6/7)	
CSF Disturbances				
Hartings et al., 2014 [94] De Bonis et al., 2013 [95] Honeybul et al., 2012 [96] Qiu et al., 2012 [50] Cooper et al., 2011 [14] Ho et al., 2011 [10] Honeybul et al., 2011 [38]	Hydrocephalus	TBI	14.8% (290/1966)	16.4% (470/2868) Adult

Malmivaara et al., 2011 [11] Su et al., 2011 [97] Wen et al., 2011 [24] Akyuz et al., 2010 [39] Ban et al., 2010 [27] Cavusoglu et al., 2010 [98] De Bonis et al., 2010 [83] Kaen et al., 2010 [99] Honeybul et al., 2010 [100, 101] Aarabi et al., 2009 [51] Adamo et al., 2009 [73] Huang et al., 2008 [52] Morgalla et al., 2008 [85] Stiver et al., 2008 [102] Yang et al., 2008 [25] Chibbaro et al., 2007 [53] Liang et al., 2007 [103] Guerra et al., 1999 [104] Polin et al., 1997 [42]				
Raffiq et al., 2014 [58] Shao et al., 2013 [59] Takeuchi et al., 2013 [87] Kenning et al., 2012 [30] Lee et al., 2012 [31] Ropper et al., 2012 [105] Takeuchi et al., 2012 [56] Fandino et al., 2004 [80]		Stroke	25.5% (93/364)	
Heuts et al., 2013 [106] Takeuchi et al., 2013 [88] Ho et al., 2011 [10] Yanaka et al., 2000 [107]		ICH/SDH	21.1% (46/218)	
Godil et al., 2011 [64] Malmivaara et al., 2011 [12] Kim et al., 2009 [108] Shoakazemi et al., 2009 [109] Yoo et al., 1999 [110]		Numerous	12.7% (40/315)	

Honeybul et al., 2014 [20] Honeybul et al., 2012 [96] De Bonis et al., 2013 [95] Wang et al., 2012 [111] De Bonis et al., 2011 [65] Guresir et al., 2011 [19] Honeybul et al., 2011 [38] Huang et al., 2011 [21] Perez et al., 2011 [77] Su et al., 2011 [97] Wen et al., 2011 [24] Akyuz et al., 2010 [39] Ban et al., 2010 [27] Honeybul et al., 2010 [100] Honeybul et al., 2010 [101] Kaen et al., 2010 [99] Aarabi et al., 2009 [51] Qiu et al., 2009 [15] Yang et al., 2009 [112] Huang et al., 2008 [52] Li et al., 2008 [55] Stiver et al., 2008 [102] Yang et al., 2008 [25] Liang et al., 2007 [103] Aarabi et al., 2006 [29] Ucar et al., 2005 [68] Guerra et al., 1999 [104]	Subdural Effusion/Hygroma	TBI	27.4% (723/2643)	25.7% (807/3140) Adult
Hejazi et al., 2002 [115]		Peds TBI	57.1% (4/7)	
Shao et al., 2013 [59] Kenning et al., 2012 [30] Ropper et al., 2012 [105] Mandon et al., 2010 [113] Mori et al., 2004 [78] Yoo et al., 1999 [110] Schwab et al., 1998 [114]		Stroke	12.5% (42/336)	
Woertgen et al., 2006 [41]		SDH	5.8% (4/69)	
Nalbach et al., 2012 [116] Malmivaara et al., 2011 [12] Ko et al., 2007 [160]		Numerous	41.3% (38/92)	
Qiu et al., 2012 [50] Al-Jishi et al., 2011 [36] Cooper et al., 2011 [14] Sughrue et al., 2011 [62] Ban et al., 2010 [27] Li et al., 2008 [55] Yang et al., 2008 [25] Polin et al., 1997 [42]	CSF Leak	TBI	6.7% (54/807)	6.3% (67/1068)

Pfefferkorn et al., 2009 [89] Mori et al., 2004 [78]		Stroke	8.8% (7/128)	
Godil et al., 2011 [64]		Numerous	4.5% (4/89)	
Aaron et al., 2013 [3]		Other	4.5% (2/44)	
Bao et al., 2010 [74] Jiang et al., 2005 [76]	CSF Fistula	TBI	5.2% (27/523)	5.2% (27/523)
Adamo et al., 2009 [73]		Neonatal TBI	43% (3/7)	

[a] TBI = traumatic brain injury; Stroke = ischemic stroke; ICH = intracerebral hemorrhage; SAH = subarachnoid hemorrhage. All data reported in this table refers to adult injury, except where specifically noted.

[b] Complications and indications for DC were categorized according to authors' descriptions.

[c] Frequencies were first calculated for individual reports and then averaged across all reports for a particular subcategory of complication.

TABLE S2: Complications of Cranioplasty [a]

Authors and Year	Complication [b]	Indication for DC [b]	Reported Frequency [c]	Overall Frequency [c]
Hemorrhagic Complications				
Martin et al., 2014 [136] Bobinkski et al., 2013 [120] Schuss et al., 2012 [121] Huang et al., 2011 [21] Malmivaara et al., 2011 [11] Huang et al., 2008 [52] Skoglund et al., 2006 [67]	Ipsilateral Hematoma	TBI	5.4% (23/426)	3.6% (113/3101)
Ewald et al., 2013 [122] Piedra et al., 2013 [123] Schuss et al., 2012 [121] Guresir et al, 2011 [19]		Stroke	4.6% (13/285)	
Guresir et al., 2011 [19]		ICH	15.4% (2/13)	
Guresir et al., 2011 [19]		SAH	4.8% (2/42)	
Schuss et al., 2012 [121]		ICH/SAH	7.5% (7/93)	
Woertgen et al., 2006 [41]		SDH	1.4% (1/69)	
Piedra et al., 2014 [130]		Trauma	2.5% (4/157)	
Coulter et al., 2014 [129] Sundseth et al., 2014 [132] Thien et al., 2014 [133] Wachter et al., 2013 [134] Dunisch et al., 2013 [137] Lee et al., 2013 [135] Malmivaara et al., 2011 [12]		Numerous	2.7% (33/1227)	
Walcott et al., 2013 [128] Archavlis et al., 2012 [127] Schuss et al., 2012 [121] Godil et al., 2011 [64] Lee et al., 2011 [124] Gooch et al., 2009 [126] Lee et al., 2009 [125]		Unspecified	2.8% (22/789)	
Chitale et al., 2013 [160]	Hemorrhagic Transformation	Stroke	Case Report	N/A
Infectious Complications				
Bobinkski et al., 2013 [120] Cooper et al., 2011 [14] Huang et al., 2011 [21]	Superficial Complications	TBI	5.4% (14/257)	9.6% (163/1698) Adult
Bowers et al., 2013 [140] Kan et al., 2006 [71]		Peds TBI	9.4% (10/106)	
Ewald et al., 2013 [122] Piedra et al., 2013 [123] Schuss et al., 2013 [61]		Stroke	9.1% (24/265)	
Shah et al., 2013 [139]		Peds Stroke	33% (1/3)	

Piedra et al., 2014 [130]		Trauma	10.8% (17/157)	
Cheng et al., 2014 [138] Coulter et al., 2014 [d] [129] Thien et al., 2014 [133] Wachter et al., 2013 [134] Sobani et al., 2011 [131] Inamasu et al., 2010 [141]		Numerous	10.1% (79/780)	
Walcott et al., 2013 [128]		Unspecified	12.1% (29/239)	
Schuss et al., 2012 [121] Cooper et al., 2011 [14] Guresir et al., 2011 [19] Huang et al., 2011 [21] Albanese et al., 2003 [86]	Deep Complications	TBI	4.8% (20/420)	3.8% (89/2359) Adult
Perez et al., 2011 [77] Kan et al., 2006 [71]		Peds TBI	4.6% (3/65)	
Ewald et al., 2013 [122] Schuss et al., 2013 [61] Guresir et al., 2011 [19] Mandon et al., 2010 [113] Vahedi et al., 2007 [79]		Stroke	3.3% (8/243)	
Guresir et al., 2011 [19]		ICH	7.7% (1/13)	
Guresir et al., 2011 [19]		SAH	4.8% (2/42)	
Missori et al., 2003 [147]		SDH	3.3% (1/30)	
Cheng et al., 2014 [138] Coulter et al., 2014 [d] [129] Heo et al., 2014 [143] Thien et al., 2014 [133] Dunisch et al., 2013 [137] Sobani et al., 2011 [131] Kim et al., 2009 [108] Nassiri et al., 2009 [144] Andrzejak et al., 2005 [145] Yoo et al., 1999 [110]		Numerous	3.8% (52/1361)	
Hohne et al., 2013 [142] Archavlis et al., 2012 [127]		Unspecified	2.0% (5/250)	
Martin et al., 2014 [136] Cooper et al., 2011 [14] Malmivaara et al., 2011 [11]	Meningitis/Ventriculitis	TBI	4.5% (7/154)	4.5% (7/154) Adult
Martin et al., 2014 [136]		Peds TBI	5.6% (1/18)	
Martin et al., 2014 [136]		Adolescent TBI	1.1% (1/9)	
Honeybul et al., 2014 [20] Martin et al., 2014 [136] Bowers et al., 2013 [140] Hayes et al., 2013 [91] Honeybul et al., 2012 [151] Al-Jishi et al., 2011 [36] Ho et al., 2011 [10]	Bone flap/Prosthesis Infection	TBI	8.0% (74/923)	5.4% (164/3056) Adult

Honeybul et al., 2011 [38] Aarabi et al., 2006 [29]				
Kan et al., 2006 [71]		Peds TBI	2.9% (1/35)	
Martin et al., 2014 [136]		Adolescent TBI	2.2% (2/9)	
Shah et al., 2013 [139]		Peds Stroke	33.3% (1/3)	
Sundseth et al., 2014 [132] Lee et al., 2013 [135] Stefini et al., 2013 [150] Hitchings et al., 2010 [43]		Numerous	3.1% (59/1886)	
Kano et al., 2012 [148] Lee et al., 2009 [125] Shoakazemi et al., 2009 [109]		Unspecified, Adult	8.5% (21/247)	
Piedra et al., 2012 [149]		Unspecified, Peds	6.6% (4/61)	
Kung et al., 2012 [92] Rotaru et al., 2012 [154] Schuss et al., 2012 [121] Cooper et al., 2011 [14] Malmivaara et al., 2011 [11] Beauchamp et al., 2010 [152] Honeybul et al., 2010 [101] Stephens et al., 2010 [66] Aarabi et al., 2006 [29] Guerra et al., 1999 [104]	Infection/Wound Healing Disturbance, Not otherwise specified	TBI	10.1% (57/564)	7.3% (152/2092)
Figaji et al., 2006 [155]		Peds TBI	8.3% (1/12)	
Schuss et al., 2012 [121]		Stroke	2.5% (2/80)	
Schuss et al., 2012 [121]		ICH/SAH	5.4% (5/93)	
Lee et al., 2013 [135] Malmivaara et al., 2011 [12] Inamasu et al., 2010 [141] Nassiri et al., 2009 [144] Movassaghi et al., 2006		Numerous	6.4% (27/422)	
Grant et al., 2004		Numerous, Peds	5% (2/40)	
Oladunjoye et al., 2013 Walcott et al., 2013 Im et al., 2012 Lee et al., 2011 [124] Gooch et al., 2009 [126] Schulz-Stubner et al., 2009 Shoakazemi et al., 2009 [109]		Unspecified	6.5% (61/933)	
CSF Disturbances				
Honeybul et al., 2012 [96] Skoglund et al., 2006 [67]	Hydrocephalus	TBI	6.2% (11/178)	7.5% (48/641)
Takeuchi et al., 2013 [87] Piedra et al., 2013 [123]		Stroke	9.8% (10/102)	
Hayes et al., 2013 [91]		ICH	5.6% (1/18)	
Oladunjoye et al., 2013 [13]		Numerous	7.6% (26/343)	

Walcott et al., 2013 [128] Malmivaara et al., 2011 [12]				
Piedra et al. 2012 [149]		Peds Numerous	3.3% (2/61)	
Martin et al., 2014 [136] Archavlis et al., 2012 [127] Honeybul et al., 2012 Schuss et al., 2012 [121] Chun et al., 2011 Guresir et al., 2011 [19] Huang et al., 2011 [21] Huang et al., 2008 [52]	Subdural Effusion/Hygroma	TBI	6.4% (53/824)	5.8% (58/993) Adult
Martin et al., 2014 [136] Ruf et al., 2003		Peds TBI	8.3% (2/24)	
Schuss et al., 2012 [121] Guresir et al., 2011 [19]		ICH	6.1% (2/33)	
Wachter et al., 2013 [134]		Numerous	2.2% (3/136)	
Martin et al., 2014 [136] Huang et al., 2011 [21]	CSF Leak	TBI	8.6% (15/174)	6.8% (29/428) Adult
Martin et al., 2014 [136] Figaji et al., 2006 [155]		Peds TBI	1.0% (3/30)	
Martin et al., 2014 [136]		Adolescent TBI	1.1% (1/9)	
Woertgen et al., 2006 [41]		SDH	8.7% (6/69)	
Godil et al., 2011 [64] Sobani et al., 2011 [131]		Numerous	4.3% (8/185)	
Schuss et al., 2012 [121] Skoglund et al., 2006 [67]	CSF Fistula	TBI	1.7% (2/117)	1.3% (8/597)
Schuss et al., 2012 [121]		Stroke	1.3% (1/80)	
Schuss et al., 2012 [121] Guresir et al, 2011 [19]		ICH	3.2% (2/63)	
Hohne et al., 2013 [142] Guresir et al., 2011 [19]		Numerous	0.9% (3/337)	
Bone Flap Resorption/Depression and Cosmetic Defects				
Honeybul et al., 2014 [20] Martin et al., 2014 [136] Bowers et al., 2013 [140] Schuss et al., 2013 [158] Honeybul et al., 2012 [151] Guresir et al., 2011 [19] Honeybul et al., 2011 [38] Malmivaara et al., 2011 [11] Honeybul et al., 2010 [101] Aarabi et al., 2006 [29]	Bone Flap Resorption	TBI	13.5% (138/1019)	16% (357/2237) Adult
Martin et al., 2014 [136]		Peds TBI	72.2% (13/18)	
Adamo et al., 2009 [73]		Infantile TBI	28.6% (2/7)	
Ewald et al., 2013 [122] Piedra et al., 2013 [123]		Stroke	12.7% (28/221)	

Schuss et al., 2013 [158]				
Schuss et al., 2013 [158] Fung et al., 2012 [16]		ICH	6.5% (2/31)	
Schuss et al., 2013 [158]		SAH	1.4% (1/71)	
Piedra et al., 2014 [130]		Trauma	17.2% (27/157)	
Sundseth et al., 2014 [132] Dunisch et al., 2013 [137] Wachter et al., 2013 [134] Malmivaara et al., 2011 [12]		Numerous	26% (155/597)	
Shoakazemi et al., 2009 [109] Gooch et al., 2009 [126]		Unspecified, Adult	4.35 (6/141)	
Piedra et al., 2012 [149]		Unspecified, Peds	29.5% (18/61)	
Bobinksi et al., 2013 [120] Rotaru et al., 2012 [154] Cooper et al., 2011 [14]	Bone Flap Depression/Other Cosmetic Defects	TBI	4.5% (6/132)	3.1% (71/2282)
Thomale et al., 2010 [159] Ruf et al., 2003 [157]		Peds TBI	6.8% (4/59)	
Coulter et al., 2014 [129] Stefini et al., 2013 [150] Wachter et al., 2013 [134] Kumar et al., 2011 [37]		Numerous	2.7% (52/1950)	
Grant et al., 2004 [146]		Numerous, Peds	50% (20/40)	
Lee et al., 2011 [124] Gooch et al., 2009 [126] Shoakazemi et al., 2009 [109]		Unspecified	6.5% (13/200)	

[a] TBI = traumatic brain injury; Stroke = ischemic stroke; ICH = intracerebral hemorrhage; SAH = subarachnoid hemorrhage; EDH = epidural hematoma; SDH = subdural hematoma. All data reported in this table refers to adult injury, except where specifically noted.

[b] Complications and indications for DC and subsequent cranioplasty were categorized according to authors' descriptions.

[c] Frequencies were first calculated for individual reports and then averaged across all reports for a particular subcategory of complication.

[d] Authors in this report grouped superficial and deep complications together [21.7% (36/166) of patients]. This data was included in the calculation of overall incidence in both categories.

Online Supplement

METHODS

Search parameters and organizational strategy

We utilized two search strategies when compiling references for this comprehensive review. First, we performed a search on PubMed/Medline using the following specific search terms: (((((decompressive craniectomy[Title/Abstract] OR decompressive hemicraniectomy[Title/Abstract]) AND outcomes[Title/Abstract])) OR ((decompressive craniectomy[Title/Abstract] OR decompressive hemicraniectomy[Title/Abstract]) AND complications[Title/Abstract]))). This strategy yielded 359 papers as of September 6, 2014. In order to perform a more inclusive search strategy, we next performed a search on PubMed/Medline using the following broad terms: ((((Search "Craniocerebral Trauma"[Mesh] OR "Brain Edema"[Mesh] OR oedema*[Title/Abstract] OR edema*[Title/Abstract] OR contusion*[Title/Abstract] OR concus*[Title/Abstract] OR fracture*[Title/Abstract] OR "Brain Edema"[Mesh] OR "Intracranial Hypertension"[Mesh] OR "Craniocerebral Trauma"[Mesh] OR "Unconsciousness"[Mesh] OR "Subarachnoid Hemorrhage"[Mesh] OR "Stroke"[Mesh] OR Stroke[Title/Abstract] OR "Intracranial Hemorrhages"[Mesh] OR "Intracranial Hemorrhage, Hypertensive"[Mesh] OR "Intracranial Hemorrhage, Traumatic"[Mesh] OR "Vasospasm, Intracranial"[Mesh] OR "hypoxia-ischemia, brain" [Mesh])) AND (decompressive craniect*[Title/Abstract] OR craniect*[Title/Abstract] OR hemicranial decompression[Title/Abstract] OR bifrontal decompr*[Title/Abstract] OR bifrontal decompres*[Title/Abstract] OR bifrontal craniectomies[Title/Abstract] OR bifrontal craniect*[Title/Abstract] OR "Decompressive Craniectomy"[Mesh])) NOT ("Animals"[Mesh]

NOT "Animals"[Mesh])). This yielded 1483 papers on Sept 6, 2014. A total of 1578 records were screened after duplicates were removed (Figure S1). Of these, 314 records were deemed ineligible for various reasons (e.g., reviews or method papers, without patient data; animal models; off-topic). Of the 1264 potentially eligible records remaining, 1122 were excluded if they were commentaries/editorials, case reports or contained no data on complications directly relating to DC. A final total of 142 reports were analyzed in detail for this review.