

Concussion Guidelines Step 1: Systematic Review of Prevalent Indicators

Supplemental Content 15

Table. Relationship Between CT Findings and SSDs

	Ono 2007¹ Adults/Adolescents/ Pediatrics N = 1,064 + CT = 50 (4.7%) adj/unad OR	Saadat 2009² Adults N = 318 + CT = 20 (6.3%) univariate tabular	Smits 2007³ Adults N = 3,181 + CT = 243 (7.6%) adjusted OR	Turedi 2008⁴ Adults/Adolescents/Pediatric s N = 240 + CT = 47 (19%)																																
Signs																																				
LOC			1.8; 1.3-2.5	1.52; 0.46-4.99; 0.4895																																
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Amnesia				0.89; 0.32-2.48; 0.8251																																
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					-	18%	82%	88%	
						47	193	240	
PTA		No sig. relat.		1.6; 0.6-4.5					
PTA \geq 4 hours				7.5; 1.5-37					
RA		Sig. relationship							
AA				1.5; 1.1-2.2					
Vomiting		Sig. relationship		2.4; 1.7-3.5		4.61; 2.20-9.64; 0.0001			
						CT+	CT-		
					Vom+	28-44%	35-56%	63-26%	
					Vom-	19-11%	158-89%	177-74%	
						47	193	240	
Nausea		No sig. relat.							
Nausea/Vomiting	4.67; 2.02-10.78; < 0.001								
	N/V+	CT+ 14-17%	CT- 66-83%	80-8%					
	N/V-	36-4%	948-96%	984-92%					
		50	1014	1064					
Seizure				2.3; 0.7-8.2		N = 1 in sample			
Symptoms									
Abnormal behavior		No sig. relat.							
Headache	9.30; 4.22-20.47; < 0.001				No sig. relat.		2.51; 0.54-11.62; 0.2379		
	H+	CT+ 19-12%	CT- 144-88%	163-15%		H+	CT+ 3-30%	CT- 7-70%	10-4%
	H-	31-3%	870-97%	901-8%		H-	44-19%	186-81%	230-96%
		50	1014	1064			47	193	240
Dizziness		No sig. relat.							
Blurred vision		No sig. relat.							
Neurologic Deficits									
Neurologic Deficit				1.5; 1.0-2.3		N = 0 in sample			
Pupil abnormalities		No sig. relat.				N = 1 in sample			
Nystagmus		No sig. relat.							

AA: anterograde amnesia, CT: Computed tomography, GCS: Glasgow Coma Scale, LOC: loss of consciousness, PTA: post-traumatic amnesia, RA: retrograde amnesia

REFERENCES

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2. Saadat S, Ghodsi SM, Naieni KH, et al. Prediction of intracranial computed tomography findings in patients with minor head injury by using logistic regression. *Journal of Neurosurgery*. 2009;111:688-694.
3. Smits M, Dippel DW, Steyerberg EW, et al. Predicting intracranial traumatic findings on computed tomography in patients with minor head injury: the CHIP prediction rule.[Summary for patients in *Ann Intern Med*. 2007 Mar 20;146(6):I55; PMID: 17371881]. *Ann Intern Med*. 2007;146(6):397-405.
4. Turedi S, Hasanbasoglu A, Gunduz A, Yandi M. Clinical decision instruments for CT scan in minor head trauma. *J Emerg Med*. 2008;34(3):253-259.