

Supplementary table 1-1. Summary of included WBA-DTI studies

Study	Character of participants								Character of imaging											Main findings (Compared with controls)						
	Trauma group			Comparison group			GCS score	Duration after trauma (weeks)	prior	Post	Medication Substance misuse	Telsla	b factor	TR/TE (ms)	NEX	Number of direction	value					Type of whole brain analysis	Software	Threshold	Multiple comparison correction	
N ^{*1}	males	mean age y.o	N ^{*2}	males	mean age	FA											ADC	MD	AD	RD						
Bazarian et al. 2007	6	NA	NA	6	NA	NA	13-15	within 0.43	NA	yes	no	3	700	4800/91	NA	NA	o	x	x	x	x	voxel based analysis	SPM	Quantile analysis	no	FA is reduced in the AIC and increased in the posterior CC
Chu et al. 2010	10	4	15.7	10	4	15.7	15	0.386	no	yes	NA	3	1000	6318/51	2	30	o	o	x	x	o	voxel based analysis	SPM2	p < 0.001 (for ADC)	no	FA was increased in thalamus
Cubon et al. 2011	10	5	19.7	10	5	20.4	13-15	NA	no	yes	NA	3	1000	10000/95	3	60	o	x	o	x	x	TBS S	FSL	p < 0.05	corrected	No significant difference in FA.
Henry et al. 2011	16	16	22.1	8	NA	22.8	15	0.488	no	yes	no	3	700	2500/3.83	NA	NA	o	x	x	x	x	voxel based analysis	SPM8	p < 0.003	no	FA increased in dorsal CST and in the CC
Lipton et al. 2008	17	8	NA	10	NA	NA	13-15	NA	NA	NA	no	1.5	1000	NA	NA	25	o	x	o	x	x	voxel based analysis	FSL	p < 0.005	no	FA was reduced in OFA, IC, CC,

STG

Lipton et al. 2009	20	9	33.4	20	9	34.2	13-15	NA	NA	yes	NA	3	1000	3800/88	NA	32	o	x	o	x	x	voxel based analysis	FSL	p < 0.01	corrected FDR	FA was decreased in the DLPFC
Messe et al. 2011	23	17	30.6	23	11	30	13-15	2.457	no	yes	no	1.5	1000	5300/110	3	26	o	x	x	x	x	TBS	FSL	p < 0.05	corrected TFCE	No significant difference in FA. FA is decreased in the CC, IC, CR, SS, ES, Cg, Fx, UF, SLF.
Messe et al. 2012	53	35	35.5	40	28	36.3	13-15	NA	no	yes	no	3	1000	10000/87	NA	50	o	x	o	o	o	TBS	FSL	p < 0.05	corrected TFCE	FA was reduced in the IFOF
Smit et al. 2010	19	10	26	12	8	28	13-15	4.371	NA	yes	no	3	1000	14200/68.9	NA	25	o	x	x	x	x	TBS	FSL	p < 0.05	corrected FDR	No significant difference in the FA.
Zhang et al. 2010	15	NA	21.3	15	NA	20.8	15	4.3	no	no	NA	3	NA	6500/93	NA	NA	o	o	x	x	x	TBS	FSL	p < 0.05	corrected	

N*1: number of patients of mild traumatic brain injury, N*2: number of controls subjects. *3: behavioral symptoms were characterized as confusion, delirium, restlessness, irritability and dizziness. *4: symptoms were assessed using Neurobehavioral Symptom Inventory Somatic complaint. Abbreviation: ROI: region of interest, TBSS: Tract-Based Spatial Statistics, GCS: Glasgow coma scale, NEX: number of excitation, TE: echo time, TR: repetition time, FA: fractional anisotropy, ADC: apparent diffusion coefficient, MD: mean diffusivity, RD: radial diffusivity, AD: axial diffusivity, TFCE: Threshold-Free Cluster Enhancement, AIC: anterior internal capsule, CST: cortico-spinal tract, OFA: orbitofrontal area, STG: superior temporal gyrus, DLPFC: dorsolateral prefrontal cortex, IC: internal capsule, CR: corona radiata, SS: sagittal stratum, ES: external capsule, Cg: cingulum, Fx: fornix, SLF: superior longitudinal fasciculus, UF: uncinate fasciculus, IFOF: inferior fronto-occipital fasciculus