

Supplementary table 1-2. Summary of included ROI-DTI studies

Study	Character of participants								Character of imaging											Main findings (Compared with controls)			
	Trauma group			Comparison group			GC S score	Duration after trauma (weeks)	prior	post	Medication	Substance misuse	Tesla	b factor	TR/TE (ms)	NE X	Number of direction	value					Location of ROIs other than CC
N ^{*1}	males	mean age y.o.	N ^{*2}	males	mean age	Psychiatric disorder												F	AD	M	A	R	
Arfankis et al. 2002	5	3	35.6	10	5	28.9	13-15	NA	no	NA	NA	1.5	1001	4500/71	4	23	o	x	x	x	x	AIC, PIC, EC	FA was reduced in the AIC, PIC, EC and CC.
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	AIC, PIC, EC	No significant difference.
Geary et al. 2010	40	17	34.53	35	16	32.54	NA	275.08	no	yes	no	3	750	NA	NA	28	o	x	x	x	x	ACR, PCR, EC, Cg, fMin, fMaj, IFOF, SLF, SS thalamus	FA was reduced in the SLF, SS, UF.
Grossman et al. 2011	22	14	38.2	14	9	36.5	13-15	9.36/202.8	NA	no	no	3	NA	9090/93	NA	NA	o	x	o	x	x	IC, CS	FA was reduced in the IC.
Inglese et al. 2005	46	29	36	29	15	35	13-15	0.6/296.4	no	NA	NA	1.5	1000	5000/100	4	6	o	x	o	x	x	IC, CS	FA was reduced in the CC and IC.
Kasahara et al. 2012	10	7	39.1	12	10	23	13-15	291.2	no	NA	no	1.5	1000	5400/99	1	60?	o	x	x	o	o	50 ROIs	No significant difference.
Kraus et al. 2007	20	8	35.85	18	7	32.83	13-15	428.0	no	NA	no	3	750	5200/81	2	27	o	x	x	x	x	ACR, PCR, CST, Cg, fMin, fMaj, IFOF, SLF, EC, SS	FA was reduced in CST, SS, SLF.

Kumar et al. 2009	26	NA	34.25	33	22	32.1	13-15	1.3	NA	behavioral symptoms ^{*3}	NA	1.5	1000	8000/100	8	10	o	x	o	o	o	no	FA was reduced in the genu and splenium of CC.
Lange et al. 2011	60	43	30.8	34	25	37.1	13-15	6.7	no	NA	no	3	1000	5600/75	NA	16	o	x	o	x	x	no	No significant difference.
Little et al. 2010	12	NA	31.2	12	NA	30.8	13-15	222.0	no	NA	no	3	1000	5000/64	8	27	o	x	x	x	x	ACR, PCR, fMin, fMaj, thalamus	FA was reduced in the ACR, PCR, fMaj, and CC.
Lo et al. 2009	10	5	38.16	10	5	44	13-15	383.8	no	cognitive impairment	no	1.5	1000	8700/89	1	25	o	o	x	x	x	IC, Pons	FA was reduced in the IC and CC.
Matsushita et al. 2011	9	NA	39.3	27	13	42.9	13-15	0.5	NA	NA	NA	1.5	1000	10060/87	NA	6	o	x	x	x	x	CR, IC, FWM, OWM	No significant difference.
Mayer et al. 2010	21	NA	27.45	20	NA	26.81	13-15	1.8	no	emotional, cognitive, somatic symptoms ^{*4}	no	3	800	9000/8400	1	30	o	x	x	x	x	SCR, SLF, UF, CR, IC	FA was reduced in the SCR, UF, IC, CC, and CR.
Miles et al. 2008	16	11	33.44	29	14	35	13-15	0.6	no	yes	no	1.5	1000	5000/100	4	6	o	x	o	x	x	CS, IC	FA was reduced in the ROIs.
Niogi et al. 2008	43	28	32.4	23	17	29.9	13-15	67.6	no	yes	no	3	1000	14000/63	NA	55	o	o	x	x	x	UF, ACR, ILF, Cg, SLF	FA was reduced in the ROIs.
Rutgers et al. 2008	24	NA	34	10	7	37	13-15	22.0	NA	NA	no	1.5	1000	5700/110	NA	25	o	o	x	x	x	no	FA was reduced in the

Wu et al. 2010	12	6	15.3	11	6	15.8	15	0.4	no	NA	NA	3	1000	63180/51	NA	30	○	○	x	x	x	Cg	genus of CC. ADC was reduced in the Cg.
Yallampalli et al. 2010	11	5	15.09	11	5	15.82	15	NA	no	NA	no	3	NA	63180/51	2	30	○	○	x	x	x	Fx	FA in the fornix was higher.
Zhang et al. 2010	15	NA	21.3	15	NA	20.8	15	4.3	no	no	NA	3	NA	6500/93	NA	NA	○	○	x	x	x	hippocampus	No significant difference.

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, 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, AIC: anterior internal capsule, PIC: posterior internal capsule, EC: external capsule, ACR: anterior corona radiata, PCR: posterior corona radiata, Cg: cingulum, fMin: forceps minor, fMaj: forceps major, IFOF: inferior fronto-occipital fasciculus, SLF: superior longitudinal fasciculus, UF: uncinata fasciculus, SS: sagittal stratum, CS: centrum semiovale, CST: corticospinal tracts, CR: corona radiata, SCR: superior corona radiata, FWM: frontal white matter, OWM: occipital white matter