

SUPPLEMENTARY MATERIAL

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Supplementary Methods

Multiple Imputation

Under the missing at random (MAR) assumption, we estimated and imputed data for missing values based on the clinical and immunological phenotype using multiple imputations methods which consider the multilevel data hierarchy and the two interaction terms between group and both time terms (30 imputed data sets, method=2l.pan, R package MICE¹). Missing data during the early trial course were mainly related to delayed transfer from other acute care clinics to the study centers, all of which have a large catchment area. The absence of data during the late trial course were predominantly due to transfer to rehabilitation centers based upon available capacities or location of the rehabilitation unit close to the patient's home and thus unavailability of some participants. The imputed values were restricted to be within the minimum and maximum of the observed values. In addition to the presented data, further immunological data (CD4+ T-helper cells, CD8+ cytotoxic T-cells and in vitro secretion of TNF α , INF γ , IIL-2, IL-4, IL-10, and IL17 after mitogenic T-cell stimulation) were used in the imputation models. If cytokine secretion was below the limit of quantification (LOQ), the value was replaced with LOQ/2. The goodness of fit (conditional R² and marginal R²) of linear mixed models are reported as mean values of the 30 imputed data sets.

Association of HLA-DR with infections

For an explorative investigation of the association of first infections in spinal cord injury (SCI) patients and monocytic Human Leukocyte Antigen-DR (mHLA-DR) expression, a category variable was created which reflects onset and status of infection over certain periods of time after SCI (≤ 7 d, > 7 d and ≤ 14 d, > 14 d, no infection during study period, censored during study period). Monitored infections included, i.e. lower respiratory, urinary tract, wound and other infections, which in detail included bloodstream or catheter-related infections, skin, genital or wound infections as well as gastrointestinal infections. We conducted a linear mixed model with random intercept with mHLA-DR expression as dependent variable and the new onset

and status of infection variable as independent variable. In the same manner as before, we added two time variables (In time; In time centered and squared) and two interaction terms (each time variable with status/onset of infection) and calculated the estimated marginal means with 95% confidence intervals at given time points and corresponding second time term.

Supplementary Table 1 Diagnostic criteria for pulmonary infection and urinary tract infection

Type of infection	Criteria
Pulmonary infection, if ≥ 3 criteria apply	<ul style="list-style-type: none"> • Temperature $< 36.0\text{ }^{\circ}\text{C}$ or $\geq 37.5\text{ }^{\circ}\text{C}$ • Putrid secretion • Pathological respiration (rales, bronchial breathing, tachypnea $> 22/\text{min}$) • Opacities in chest x ray (required for the diagnosis of pneumonia) • Detection of pathogenic germs in sputum • O_2 saturation $< 93\%$ • $\text{pO}_2 < 70\text{ mmHg}$
Urinary tract infection, if ≥ 1 criteria apply	<ul style="list-style-type: none"> • Bacteriuria with bacterial count $> 10^5$ cells/ml • Leukocyturia $\geq 100\text{ WBC}/\text{mm}^3$, respectively $100.000\text{ WBC}/\text{ml}$
Symptomatic urinary tract infection	<ul style="list-style-type: none"> • ≥ 1 criterion for urinary tract infection and • ≥ 1 of the following criteria: <ul style="list-style-type: none"> ○ fever ○ suprapubic or flank discomfort ○ bladder spasm ○ increased spasticity ○ worsening dysreflexia

Supplementary Table 1 Diagnostic criteria for pulmonary infection and urinary tract infection Pulmonary infections were defined based on established criteria for stroke associated pneumonia.^{2,3} For the distinction between non-symptomatic and symptomatic urinary tract infections spinal cord injury-specific criteria were applied.⁴

Supplementary Table 2 Frequency of missing data

	15 hours	64 hours	7days	14 days	10 weeks
mHLA-DR, %	36	26	17	20	39
Neutrophils, %	41	30	19	18	41
Monocytes, %	41	31	19	19	41
Lymphocytes, %	41	30	21	19	41
CD3+ T-cells, %	38	28	17	20	40
CD19+ B-cells, %	38	28	17	20	40
CD16+ NK-cells, %	38	28	17	20	40
IgG, %	33	23	13	16	38
IgA, %	33	23	13	16	38
IgM, %	33	23	13	16	38

Supplementary Table 2 Frequency of missing data Table indicating the relative amount of missing data of each laboratory outcome at each point in time in the study population (n=111).

Abbreviations: Ig = Immunoglobulin; CD = Cluster of differentiation; mHLA-DR = monocytic Human Leukocyte Antigen-DR expression.

Supplementary Table 3 Evaluation of the primary endpoint monocytic Human Leukocyte Antigen-DR expression (mHLA-DR) without multiple imputation (only observed data)

Group	Estimated marginal mean (98.3% CI)	p-value
High SCI	8.93 (8.73; 9.12)	0.014
Low SCI	8.98 (8.76; 9.20)	
Vertebral fracture without SCI	9.19 (9.00; 9.39)	

Supplementary Table 3 Evaluation of the primary endpoint monocytic Human Leukocyte Antigen-DR expression (mHLA-DR) in the observed data Adjusted mixed model estimated marginal means with 98.3% CI of ln mHLA-DR calculated for SCI neurological level defined groups at 84 hours after injury. mHLA-DR is measured as number of anti-HLA-DR antibodies (ab) bound per monocyte (ab/cell). Goodness of fit: conditional R^2 (fixed and random effects): 0.627; marginal R^2 (fixed effects): 0.334. Abbreviations: CI = Confidence Interval; mHLA-DR = monocytic Human Leukocyte Antigen-DR expression; SCI = Spinal Cord Injury.

Supplementary Table 4 Differences in leukocyte subpopulations between the spinal cord injury groups and the vertebral fracture group

Parameter	Time after injury	High complete SCI n=20	High incomplete SCI n=21	Low complete SCI n=16	Low incomplete SCI n=13	R ²
differences between estimated marginal means (95% CI) to the control group (n=41)						
Neutrophils ln (cells/nl x 1000)	15h	0.11 (-0.10; 0.33)	0.00 (-0.22; 0.23)	0.21 (-0.02; 0.44)	0.14 (-0.11; 0.39)	conditional 0.393
	64h	0.21 (0.02; 0.41)	0.09 (-0.10; 0.28)	0.20 (-0.01; 0.41)	0.09 (-0.14; 0.32)	
	7d	0.21 (0.02; 0.40)	0.11 (-0.08; 0.30)	0.16 (-0.05; 0.36)	0.05 (-0.18; 0.27)	marginal 0.200
	14d	0.17 (-0.02; 0.35)	0.11 (-0.08; 0.29)	0.10 (-0.09; 0.30)	0.01 (-0.21; 0.22)	
	10w	-0.04 (-0.29; 0.21)	0.04 (-0.22; 0.29)	-0.07 (-0.34; 0.20)	-0.10 (-0.39; 0.19)	
Monocytes ln (cells/nl x 1000)	15h	0.02 (-0.19; 0.23)	-0.06 (-0.28; 0.15)	0.11 (-0.12; 0.33)	0.02 (-0.23; 0.27)	conditional 0.411
	64h	0.19 (0.00; 0.39)	0.04 (-0.15; 0.22)	0.17 (-0.04; 0.38)	0.11 (-0.12; 0.33)	
	7d	0.21 (0.02; 0.40)	0.05 (-0.14; 0.24)	0.17 (-0.03; 0.38)	0.12 (-0.10; 0.34)	marginal 0.144
	14d	0.17 (-0.01; 0.35)	0.03 (-0.15; 0.21)	0.15 (-0.04; 0.35)	0.11 (-0.10; 0.32)	
	10w	-0.08 (-0.32; 0.16)	-0.09 (-0.33; 0.14)	0.04 (-0.22; 0.29)	0.01 (-0.26; 0.29)	
Lymphocytes ln (cells/nl x 1000)	15h	0.11 (-0.07; 0.30)	0.10 (-0.09; 0.29)	-0.06 (-0.25; 0.14)	-0.07 (-0.29; 0.15)	conditional 0.398
	64h	-0.04 (-0.21; 0.13)	0.03 (-0.13; 0.19)	-0.06 (-0.24; 0.12)	0.05 (-0.15; 0.24)	
	7d	-0.10 (-0.26; 0.06)	0.00 (-0.16; 0.16)	-0.06 (-0.23; 0.12)	0.07 (-0.12; 0.26)	marginal 0.199
	14d	-0.12 (-0.28; 0.03)	-0.00 (-0.16; 0.15)	-0.05 (-0.22; 0.11)	0.06 (-0.13; 0.24)	
	10w	-0.11 (-0.32; 0.11)	0.02 (-0.20; 0.23)	-0.04 (-0.27; 0.19)	-0.06 (-0.30; 0.19)	

Supplementary Table 4 Differences in leukocyte subpopulations between the spinal cord injury groups and the vertebral fracture group Differences in estimated marginal means of ln cell counts of neutrophils, monocytes, and lymphocytes between the four SCI groups in relation to the VF group. The estimates are based on the same regression models as calculated for Figure 3. 95% confidence intervals not including zero are indicated in bold. Goodness of fit (mean of m=30 models) is indicated as *conditional R²* (fixed and random effects) and *marginal R²* (fixed effects). Neuroanatomical definition of the groups: high complete SCI (neurological level Th4 or higher, AIS A); high incomplete SCI (neurological level Th4 or higher, AIS B-D); low complete SCI (neurological level Th5 or lower, AIS A); low incomplete SCI (neurological level Th5 or lower, AIS B-D); VF group (vertebral fracture without SCI). Abbreviations: AIS = American Spinal Injury Association (ASIA) Impairment Scale; CI = Confidence Interval; ln = log-transformed; SCI = Spinal Cord Injury; VF = Vertebral Fracture.

Supplementary Table 5 Differences in lymphocyte subpopulations between the spinal cord injury groups and the vertebral fracture group

Parameter	Time after injury	High complete SCI n=20	High incomplete SCI n=21	Low complete SCI n=16	Low incomplete SCI n=13	R ²
differences between estimated marginal means (95% CI) to the control group (n=41)						
CD3+-T-cells ln (cells/nl x 1000)	15h	0.06 (-0.15; 0.28)	0.09 (-0.13; 0.32)	-0.12 (-0.35; 0.11)	-0.15 (-0.41; 0.10)	conditional 0.361
	64h	-0.08 (-0.27; 0.12)	0.01 (-0.18; 0.20)	-0.17 (-0.38; 0.04)	-0.07 (-0.29; 0.16)	
	7d	-0.11 (-0.30; 0.08)	-0.01 (-0.20; 0.17)	-0.14 (-0.34; 0.07)	-0.03 (-0.25; 0.19)	marginal 0.144
	14d	-0.10 (-0.28; 0.08)	-0.01 (-0.19; 0.17)	-0.08 (-0.27; 0.12)	-0.00 (-0.22; 0.21)	
	10w	0.01 (-0.24; 0.27)	0.03 (-0.22; 0.28)	0.18 (-0.09; 0.45)	0.02 (-0.27; 0.31)	
CD19+-B-cells ln (cells/nl x 1000)	15h	0.12 (-0.24; 0.47)	0.37 (0.00; 0.73)	-0.16 (-0.54; 0.23)	-0.25 (-0.67; 0.17)	conditional 0.661
	64h	0.08 (-0.26; 0.43)	0.36 (0.02; 0.70)	-0.15 (-0.53; 0.22)	-0.09 (-0.49; 0.31)	
	7d	0.04 (-0.30; 0.38)	0.33 (-0.01; 0.67)	-0.17 (-0.54; 0.20)	-0.02 (-0.42; 0.38)	marginal 0.087
	14d	-0.00 (-0.34; 0.33)	0.30 (-0.04; 0.63)	-0.19 (-0.55; 0.17)	0.00 (-0.39; 0.40)	
	10w	-0.13 (-0.51; 0.25)	0.19 (-0.19; 0.57)	-0.25 (-0.66; 0.16)	0.01 (-0.43; 0.45)	
CD16+-NK-cells ln (cells/nl x 1000)	15h	0.24 (-0.11; 0.58)	0.06 (-0.28; 0.41)	0.00 (-0.36; 0.37)	-0.14 (-0.54; 0.26)	conditional 0.533
	64h	0.02 (-0.30; 0.34)	-0.01 (-0.33; 0.30)	0.00 (-0.34; 0.35)	-0.16 (-0.53; 0.22)	
	7d	-0.12 (-0.43; 0.19)	-0.06 (-0.37; 0.25)	-0.00 (-0.34; 0.34)	-0.13 (-0.50; 0.24)	marginal 0.170
	14d	-0.22 (-0.52; 0.09)	-0.09 (-0.40; 0.22)	-0.01 (-0.34; 0.32)	-0.10 (-0.46; 0.26)	
	10w	-0.43 (-0.81; -0.05)	-0.14 (-0.52; 0.23)	-0.04 (-0.45; 0.37)	0.03 (-0.41; 0.47)	

Supplementary Table 5 Differences in lymphocyte subpopulations between the spinal cord injury groups and the vertebral fracture group Differences in estimated marginal means of ln cell counts of ln CD3 +T-cells, ln CD+19 B-cells, and ln CD16+ NK-cells between the four SCI groups in relation to the VF group. The estimates are based on the same regression models as calculated for Figure 4. 95% confidence intervals not including zero are indicated in bold. Goodness of fit (mean of m=30 models) is indicated as conditional R² (fixed and random effects) and marginal R² (fixed effects). Neuroanatomical definition of the groups: high complete SCI (neurological level Th4 or higher, AIS A); high incomplete SCI (neurological level Th4 or higher, AIS B-D); low complete SCI (neurological level Th5 or lower, AIS A); low incomplete SCI (neurological level Th5 or lower, AIS B-D); VF group (vertebral fracture without SCI). Abbreviations: AIS = American Spinal Injury Association (ASIA) Impairment Scale; CI = Confidence Interval; ln = log-transformed; SCI = Spinal Cord Injury; VF = Vertebral Fracture.

Supplementary Table 6 Differences in Immunoglobulin levels between the spinal cord injury groups and the vertebral fracture group.

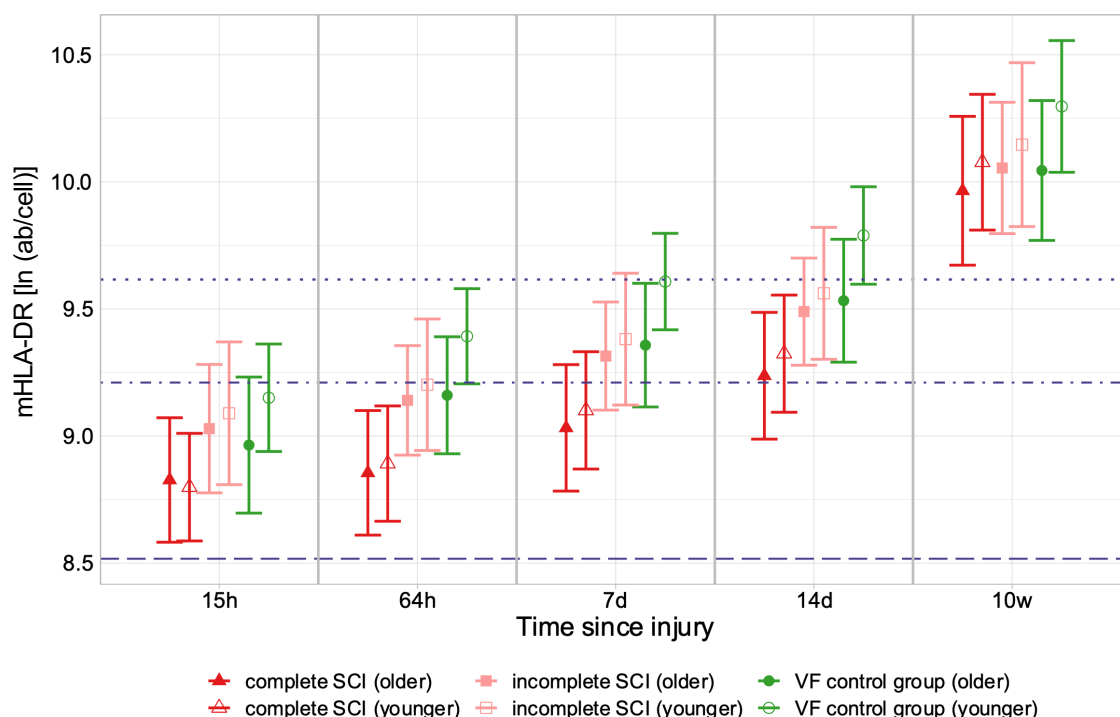
Parameter	Time after injury	High complete SCI n=20	High incomplete SCI n=21	Low complete SCI n=16	Low incomplete SCI n=13	R ²
differences between estimated marginal means (95% CI) to the control group (n=41)						
IgG ln (g/l x 1000)	15h	-0.30 (-0.47; -0.14)	-0.19 (-0.36; -0.02)	-0.38 (-0.56; -0.20)	-0.14 (-0.34; 0.06)	conditional 0.759
	64h	-0.27 (-0.43; -0.11)	-0.17 (-0.33; -0.01)	-0.35 (-0.52; -0.18)	-0.12 (-0.31; 0.07)	
	7d	-0.26 (-0.42; -0.10)	-0.15 (-0.31; 0.01)	-0.30 (-0.48; -0.13)	-0.09 (-0.28; 0.10)	marginal 0.270
	14d	-0.26 (-0.42; -0.10)	-0.14 (-0.30; 0.02)	-0.26 (-0.43; -0.09)	-0.06 (-0.25; 0.13)	
	10w	-0.27 (-0.45; -0.10)	-0.11 (-0.28; 0.07)	-0.10 (-0.29; 0.09)	0.03 (-0.18; 0.23)	
IgA ln (g/l x 1000)	15h	-0.27 (-0.50; -0.04)	-0.08 (-0.32; 0.15)	-0.21 (-0.46; 0.04)	-0.06 (-0.33; 0.22)	conditional 0.851
	64h	-0.25 (-0.48; -0.02)	-0.08 (-0.31; 0.15)	-0.18 (-0.43; 0.07)	-0.02 (-0.29; 0.25)	
	7d	-0.24 (-0.47; -0.01)	-0.08 (-0.31; 0.15)	-0.15 (-0.40; 0.09)	-0.00 (-0.27; 0.27)	marginal 0.192
	14d	-0.24 (-0.47; -0.01)	-0.08 (-0.31; 0.15)	-0.13 (-0.38; 0.11)	0.00 (-0.26; 0.27)	
	10w	-0.25 (-0.49; -0.01)	-0.09 (-0.33; 0.15)	-0.07 (-0.33; 0.19)	0.01 (-0.28; 0.29)	
IgM ln (g/l x 1000)	15h	-0.33 (-0.66; -0.00)	0.05 (-0.28; 0.37)	-0.22 (-0.57; 0.13)	-0.05 (-0.43; 0.33)	conditional 0.770
	64h	-0.23 (-0.55; 0.09)	0.09 (-0.23; 0.40)	-0.09 (-0.43; 0.26)	-0.09 (-0.46; 0.29)	
	7d	-0.18 (-0.50; 0.14)	0.10 (-0.22; 0.41)	-0.03 (-0.37; 0.31)	-0.08 (-0.46; 0.29)	marginal 0.130
	14d	-0.15 (-0.46; 0.17)	0.10 (-0.22; 0.41)	0.00 (-0.34; 0.34)	-0.07 (-0.44; 0.30)	
	10w	-0.08 (-0.43; 0.26)	0.07 (-0.27; 0.41)	0.02 (-0.35; 0.38)	-0.00 (-0.40; 0.40)	

Supplementary Table 6 Differences in immunoglobulin levels between the spinal cord injury groups and the vertebral fracture group Differences in estimated marginal means of

ln IgG, ln IgA, and ln IgM serum levels between the four SCI groups in relation to the VF group.

The estimates are based on the same regression models as calculated for Figure 5. 95% confidence intervals not including zero are indicated in bold. Goodness of fit (mean of m=30 models) is indicated as conditional R² (fixed and random effects) and marginal R² (fixed effects). Neuroanatomical definition of the groups: high complete SCI (neurological level Th4 or higher, AIS A); high incomplete SCI (neurological level Th4 or higher, AIS B-D); low complete SCI (neurological level Th5 or lower, AIS A); low incomplete SCI (neurological level Th5 or lower, AIS B-D); VF group (vertebral fracture without SCI). Abbreviations: AIS = American Spinal Injury Association (ASIA) Impairment Scale; CI = Confidence Interval; Ig = Immunoglobulin; ln = log-transformed; SCI = Spinal Cord Injury; VF = Vertebral Fracture.

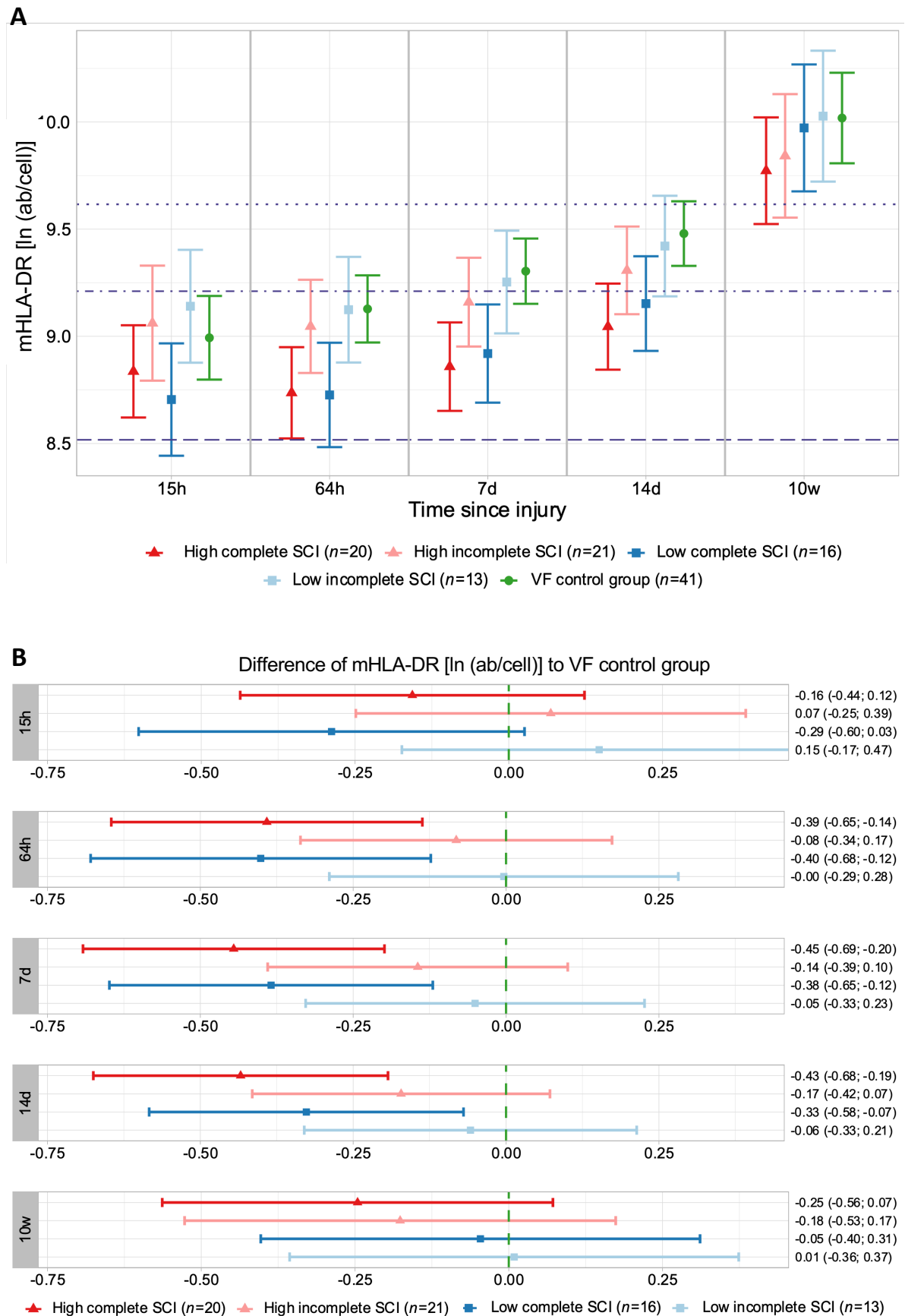
Supplementary Figure 1 Exploring the relationship of age and monocytic Human Leukocyte Antigen-DR expression (mHLA-DR) over time



Supplementary Figure 1 Mixed model of monocytic Human Leukocyte Antigen-DR

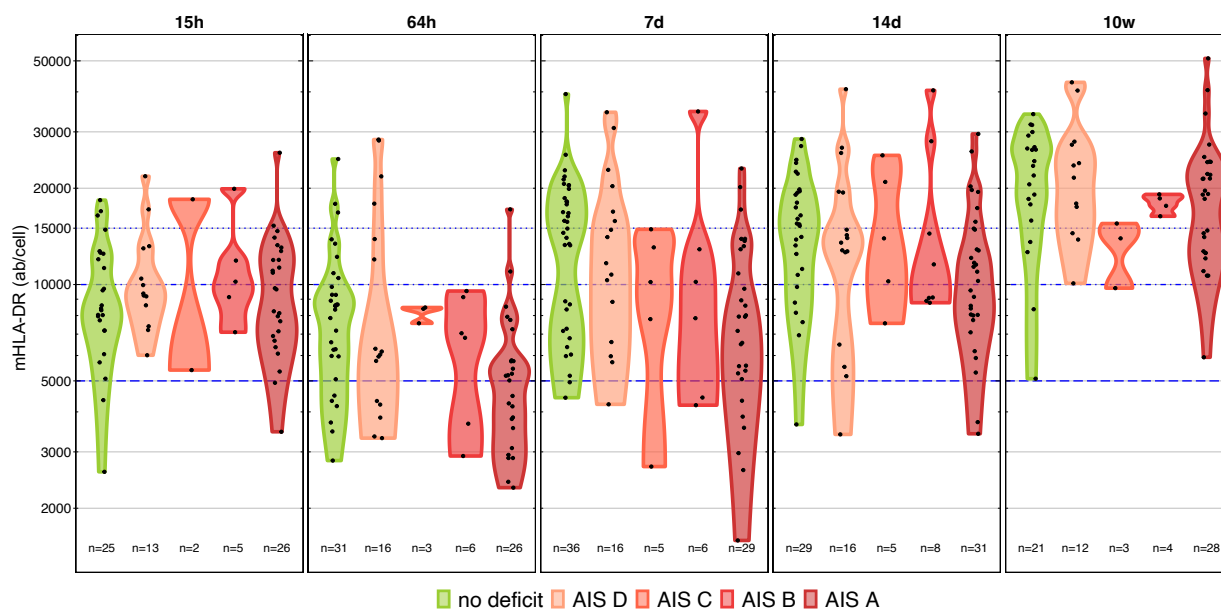
expression (mHLA-DR) with age vs time interaction Mixed model of log-transformed mHLA-DR expressed as number of anti-HLA-DR antibodies (ab) bound per monocyte (ab/cell) over time adjusted for age, sex, treatment center, time point of measure, and time point of first spine surgery after multiple imputation for missing values (30 complete datasets). Estimated marginal means with 95% CI were calculated for the patients with complete SCI (American Spinal Injury Association Impairment Scale (AIS) A; n=36), incomplete SCI (AIS B-D; n=34) and vertebral fracture (vertebral fracture without SCI; n=41) at the 25th and 75th age percentiles (36 vs 63 years) at the per-protocol time points of blood collection. The total number of actual observed mHLA-DR measurements was 260. The blue horizontal lines indicate the thresholds towards more serious stages of immune suppression; dotted line ln (<15,000 ab/cell) = immune suppression; dotted/broken line ln (<10,000 ab/cell) = borderline immunoparalysis; broken line ln (<5,000 ab/cell) = immunoparalysis.^{5,6} Abbreviations: CI = Confidence Interval; ln = log-transformed; mHLA-DR = monocytic Human Leukocyte Antigen-DR expression; SCI = Spinal Cord Injury.

Supplementary Figure 2 Monocytic Human Leukocyte Antigen-DR expression (mHLA-DR) without multiple imputation (only observed data)



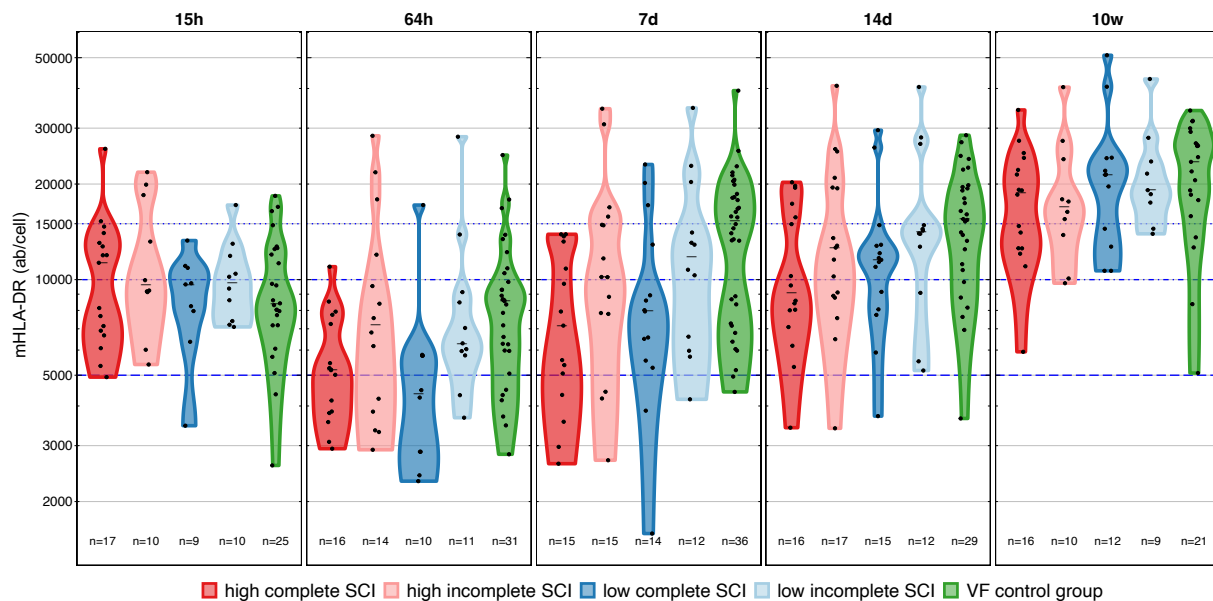
Supplementary Figure 2 Monocytic Human Leukocyte Antigen-DR expression (mHLA-DR) without multiple imputation (only observed data) **A:** Linear mixed model estimated marginal means with 95% CI of log-transformed mHLA-DR [number of anti-HLA-DR antibodies (ab) bound per monocyte (ab/cell)] over time calculated for the five groups at the per-protocol time points of blood collection. The model was adjusted for age, sex, treatment center, time point of measure and the time point of first spine surgery. The total number of actual observed mHLA-DR measurements was 402. Goodness of fit: conditional R^2 (fixed and random effects): 0.635; marginal R^2 (fixed effects): 0.355. The blue horizontal lines indicate the thresholds towards more serious stages of immune suppression; dotted line $\ln (<15,000 \text{ ab/cell})$ = immune suppression; dotted/broken line $\ln (<10,000 \text{ ab/cell})$ = borderline immunoparalysis; broken line $\ln (<5,000 \text{ ab/cell})$ = immunoparalysis.^{5,6} **B:** Estimated mean differences of \ln mHLA-DR of the four SCI groups in relation to the VF group indicated as green broken line. Neuroanatomical definition of the groups: high complete SCI (neurological level Th4 or higher, AIS A); high incomplete SCI (neurological level Th4 or higher, AIS B-D); low complete SCI (neurological level Th5 or lower, AIS A); low incomplete SCI (neurological level Th5 or lower, AIS B-D); VF group (vertebral fracture without SCI). Abbreviations: AIS = American Spinal Injury Association (ASIA) Impairment Scale; CI = Confidence Interval; mHLA-DR = monocytic Human Leukocyte Antigen-DR expression; SCI = Spinal Cord Injury; VF = Vertebral Fracture.

Supplementary Figure 3 Raw data of monocytic Human Leukocyte Antigen-DR expression (mHLA-DR) grouped for individual American Spinal Injury Association Impairment Scale (AIS) grades



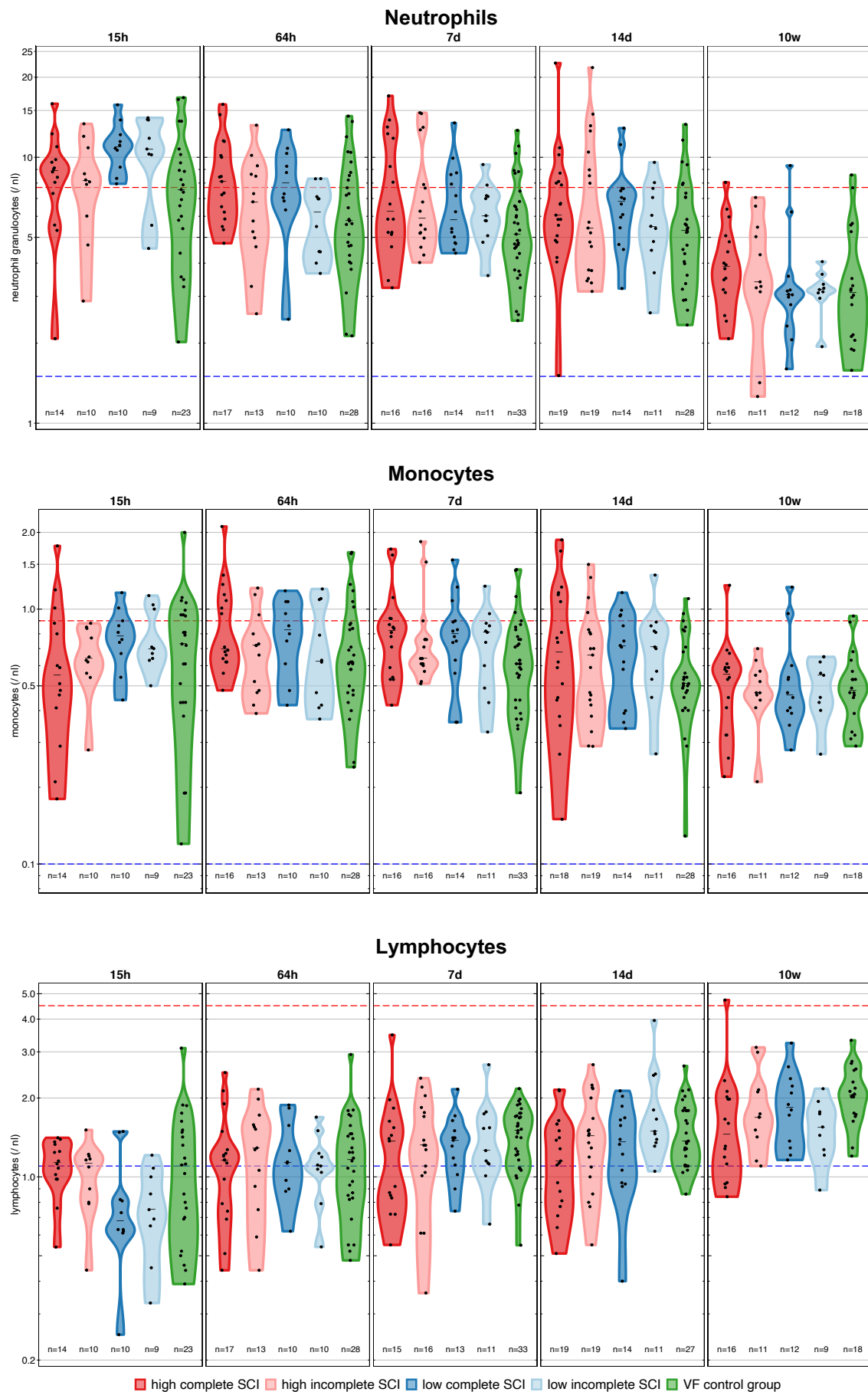
Supplementary Figure 3 Raw data of monocytic Human Leukocyte Antigen-DR expression (mHLA-DR) grouped for individual American Spinal Injury Association Impairment Scale grades Violin plots of the mHLA- DR [number of anti-HLA-DR antibodies (ab) bound per monocyte (ab/cell)] raw data illustrated for de-categorized AIS grades⁷ of SCI severity (red) and the VF control group (green). The blue horizontal lines in the graph indicate the thresholds towards more serious stages of immune deficiency; dotted line <15,000 ab/cell = immune depression; dotted/broken line <10,000 ab/cell = borderline immunoparalysis; broken line <5,000 ab/cell = immunoparalysis.^{5,6} The dots indicate the data points. Abbreviations: AIS = American Spinal Injury Association (ASIA) Impairment Scale; mHLA-DR = monocytic Human Leukocyte Antigen-DR expression; SCI = Spinal Cord Injury; VF = Vertebral Fracture.

Supplementary Figure 4 Raw data of monocytic Human Leukocyte Antigen-DR expression (mHLA-DR)



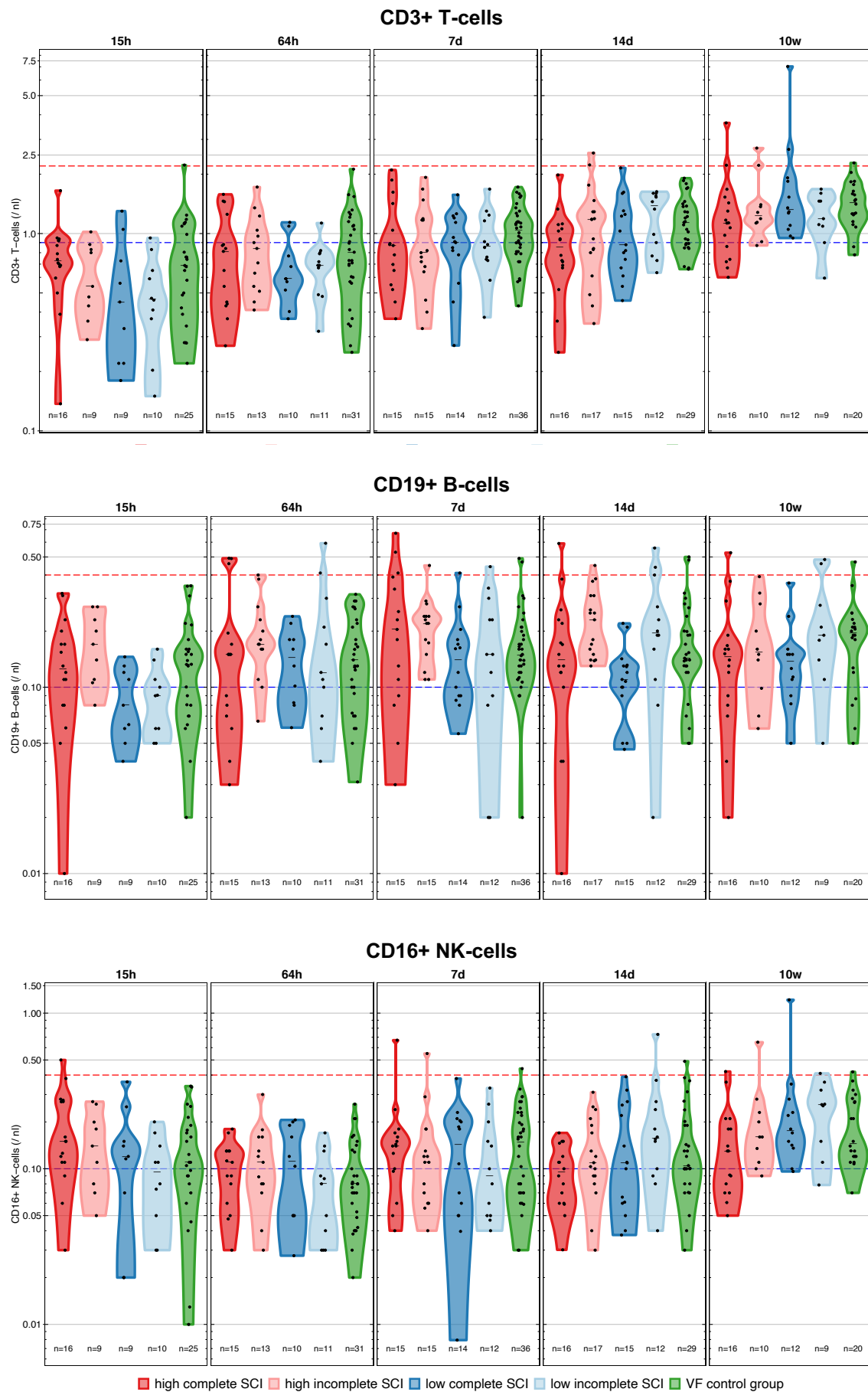
Supplementary Figure 4 Raw data of monocytic Human Leukocyte Antigen-DR expression (mHLA-DR) Violin plots of the mHLA-DR DR [number of anti-HLA-DR antibodies (ab) bound per monocyte (ab/cell)] raw data illustrated for the four SCI groups and the VF control group. The bar indicates the median. The blue horizontal lines in the graph indicate the thresholds towards more serious stages of immune deficiency; dotted line <15,000 ab/cell = immune depression; dotted/broken line <10,000 ab/cell = borderline immunoparalysis; broken line <5,000 ab/cell = immunoparalysis.^{5,6} mHLA-DR values below the reference line indicate immune depression. Neuroanatomical definition of the groups: high complete SCI (neurological level Th4 or higher, AIS A); high incomplete SCI (neurological level Th4 or higher, AIS B-D); low complete SCI (neurological level Th5 or lower, AIS A); low incomplete SCI (neurological level Th5 or lower, AIS B-D); VF group (vertebral fracture without SCI). Abbreviations: mHLA-DR = monocytic Human Leukocyte Antigen-DR expression; SCI = Spinal Cord Injury; VF = Vertebral Fracture.

Supplementary Figure 5 Raw data of leukocyte populations



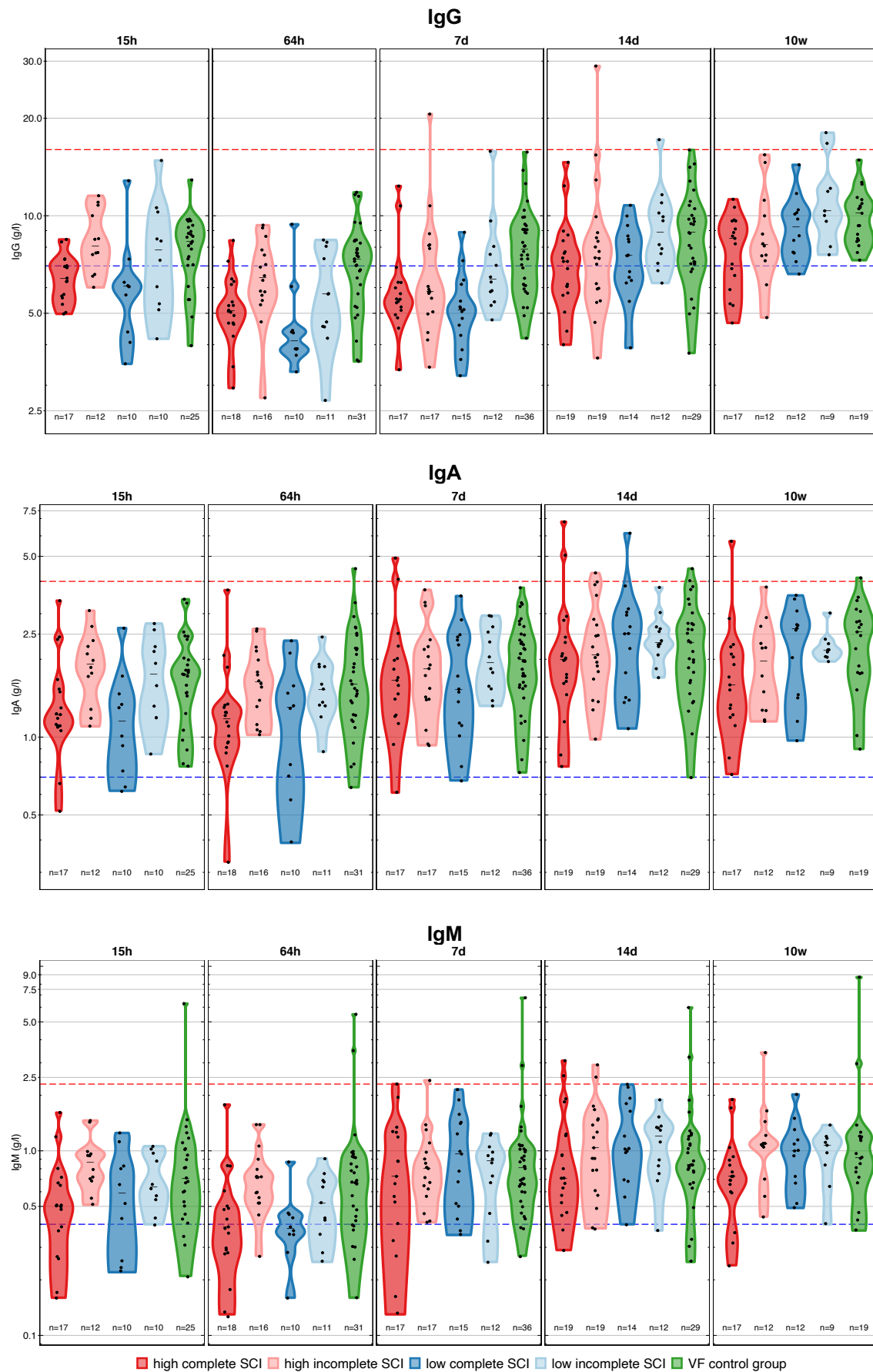
Supplementary Figure 5 Raw data of leukocyte populations Violin plots of the leukocyte populations raw data distribution within the SCI groups and the VF control group. The bar within the violin indicates the median. The broken lines in the graph indicate the upper bound (red) and the lower bound (blue) of the reference areas. Neuroanatomical definition of the groups: high complete SCI (neurological level Th4 or higher, AIS A); high incomplete SCI (neurological level Th4 or higher, AIS B-D); low complete SCI (neurological level Th5 or lower, AIS A); low incomplete SCI (neurological level Th5 or lower, AIS B-D); VF group (vertebral fracture without SCI). Abbreviations: SCI = Spinal Cord Injury; VF = Vertebral Fracture.

Supplementary Figure 6 Raw data of lymphocyte subpopulations



Supplementary Figure 6 Raw data of lymphocyte subpopulations Violin plots of the lymphocyte sub-populations raw data illustrated for the four SCI groups and the VF control group. The bar within the violin indicates the median. The broken lines in the graph indicate the upper bound (red) and the lower bound (blue) of the reference areas. Neuroanatomical definition of the groups: high complete SCI (neurological level Th4 or higher, AIS A); high incomplete SCI (neurological level Th4 or higher, AIS B-D); low complete SCI (neurological level Th5 or lower, AIS A); low incomplete SCI (neurological level Th5 or lower, AIS B-D); VF group (vertebral fracture without SCI). Abbreviations: CD = Cluster of differentiation; SCI = Spinal Cord Injury; VF = Vertebral Fracture.

Supplementary Figure 7 Raw data of serum immunoglobulins



Supplementary Figure 7 Raw data of serum immunoglobulins Violin plots of the immunoglobulin raw data illustrated for the four SCI groups and the VF control group. The bar within the violin indicates the median. The broken lines in the graph indicate the upper bound (red) and the lower bound (blue) of the reference areas. Neuroanatomical definition of the groups: high complete SCI (neurological level Th4 or higher, AIS A); high incomplete SCI (neurological level Th4 or higher, AIS B-D); low complete SCI (neurological level Th5 or lower, AIS A); low incomplete SCI (neurological level Th5 or lower, AIS B-D); VF group (vertebral fracture without SCI). Abbreviations: Ig=Immunoglobulin; SCI = Spinal Cord Injury; VF = Vertebral Fracture.

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