# Supplemental Content

Viktorisson A, Buvarp D, Danielsson A, Skoglund T, S Sunnerhagen K. Prestroke Physical Activity is Associated with Admission Hematoma Volume and the Clinical Outcome of Intracerebral Hemorrhage

**Supplementary Figure 1.** Distribution of covariates before and after propensity score adjustment

**Supplementary Table 1.** Sensitivity analyses for associations of physical activity with ICH volume

**Supplementary Table 2.** Sensitivity analyses for associations of physical activity with radiological and clinical ICH outcomes
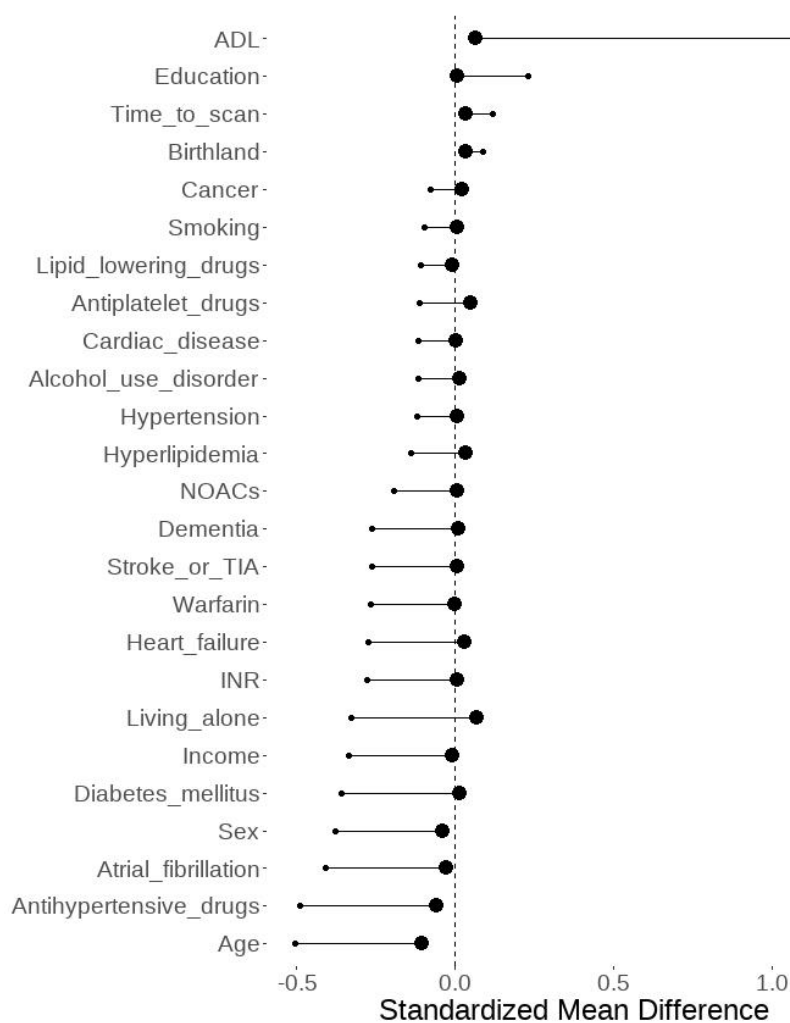
**Supplementary Figure 1. Distribution of covariates before and after propensity score adjustment**

Standardized mean differences in distribution of covariates between physically active and inactive patients before and after propensity score adjustment. A standardized mean difference of > 0.1 is commonly considered a sign of important covariate imbalance. Small dots represent unadjusted differences, and large dots represent adjusted differences. The propensity scores were computed using a generalized boosted logistic regression model including all covariates displayed. Abbreviations: ADL indicates Activities of daily living; NOAC, Non-vitamin k oral anticoagulants; and TIA, Transient ischemic attack.

Supplemental material

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**Supplementary Table 1. Sensitivity analyses of associations between pre-stroke physical activity and hematoma volume**

| | Deep ICH volume | | Lobar ICH volume | | Infratentorial ICH volume | |
|---|---|---|---|---|---|---|
| | β (SE) | P value | β (SE) | P value | β (SE) | P value |
| Physical activity ≥4 h/wk | -0.35 (0.08) † | < 0.001 | -0.26 (0.10) † | 0.011 | -0.32 (0.15) † | 0.039 |
| | -0.39 (0.09) ‡ | < 0.001 | -0.22 (0.10) ‡ | 0.024 | -0.18 (0.18) ‡ | 0.317 |

Associations of pre-stroke physical activity with hematoma volume in deep, lobar and infratentorial ICH were calculated in multivariate linear regression models for cases with complete data on physical activity (n=622). Abbreviations: ICH indicates Intracerebral hemorrhage; and SE, Standard error.

† Adjusted for age, sex, education, time to scan and International Normalized Ratio (INR).          '

‡ Adjusted for propensity scores based on age, sex, birthland, education, income, activities of daily living, living situation, smoking, alcohol, hypertension, hyperlipidemia, prior stroke or TIA, atrial fibrillation, diabetes mellitus, cardiac disease, heart failure, dementia, cancer, lipid-lowering drugs, antiplatelet drugs, antihypertensive drugs, and non-vitamin k oral anticoagulants, warfarin, time to scan, and INR.

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**Supplementary Table 2. Sensitivity analyses for associations of physical activity with radiological and clinical ICH outcomes**

| | Midline shift | | IVH | | Admission NIHSS 0-4 | | One-week mRS 0-3 | | 90-day survival | |
|---|---|---|---|---|---|---|---|---|---|---|
| | OR (95% CI) | P value | OR (95% CI) | P value | OR (95% CI) | P value | OR (95% CI) | P value | OR (95% CI) | P value |
| Physical activity ≥4 h/wk | 0.69 (0.44-1.08) [†] | 0.107 | 0.68 (0.43-1.06) [†] | 0.092 | 2.22 (1.38-3.58) [†] | < 0.001 | 2.13 (1.34-3.39) [†] | 0.002 | 3.38 (1.84-6.23) [†] | < 0.001 |
| | 1.09 (0.61.1.93) [‡] | 0.780 | 0.92 (0.57-1.49) [‡] | 0.744 | 1.77 (1.04-3.01) [‡] | 0.037 | 1.71 (1.03-2.84) [‡] | 0.039 | 2.43 (1.22-4.84) [‡] | 0.012 |

Associations of pre-stroke physical activity with midline shift, intraventricular hemorrhage, NIHSS 0-4, mRS 0-3, and 90-day survival were calculated in multivariate binary logistic regression models for cases with complete data on physical activity (n=622). Abbreviations: OR indicates Odds ratio; CI, Confidence interval; IVH, Intraventricular hemorrhage; NIHSS, National Institutes of Health Stroke Scale; and mRS, modified Rankin Scale.

[†] Adjusted for hematoma location propensity scores based on age, sex, birthland, education, income, activities of daily living, living situation, smoking, alcohol, hypertension, hyperlipidemia, prior stroke or TIA, atrial fibrillation, diabetes mellitus, cardiac disease, heart failure, dementia, cancer, lipid-lowering drugs, antiplatelet drugs, antihypertensive drugs, and non-vitamin k oral anticoagulants, warfarin, time to scan, and INR

[‡] Adjusted for hematoma location, propensity scores, and hematoma volume.

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