



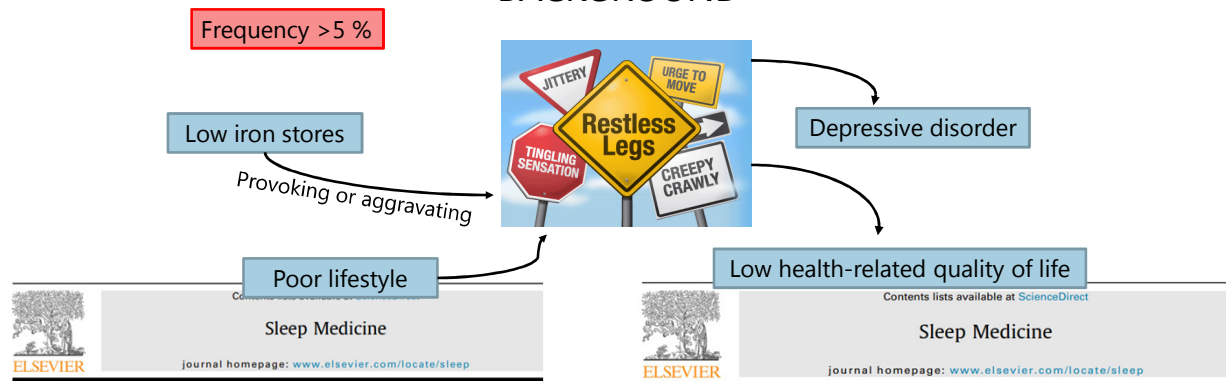
Restless legs syndrome is associated with increased risk of migraine among 20,938 Danish blood donors

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BACKGROUND



Original Article

Prevalence of restless legs syndrome and associated factors in an otherwise healthy population: results from the Danish Blood Donor Study

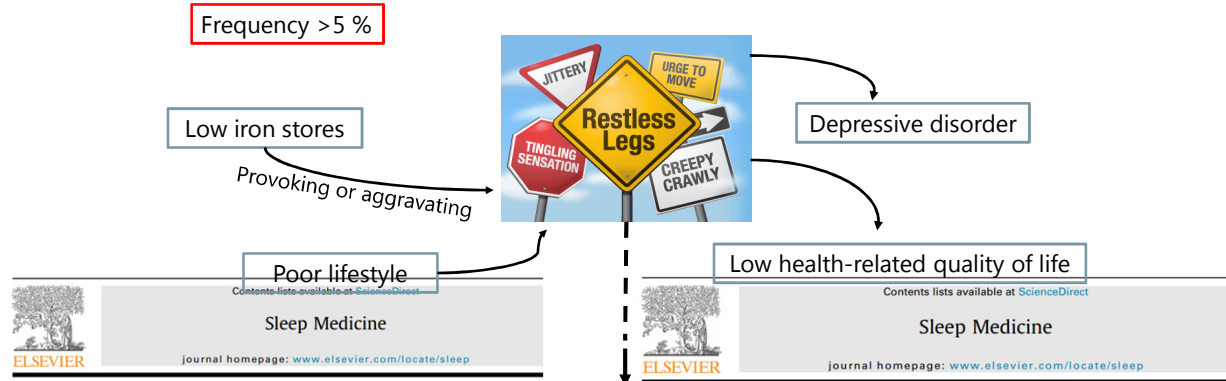
Maria Didriksen ^a, Andreas S. Rigas ^a, Richard P. Allen ^b, Brendan J. Burchell ^c, Emanuele Di Angelantonio ^{d,e}, Maria H. Nielsen ^a, Poul Jennum ^{a,g}, Thomas Werge ^{h,i,j}, Christian Erikstrup ^k, Ole B. Pedersen ^l, Mie T. Bruun ^o, Kristoffer S. Burgdorf ^a, Erik Sørensen ^a, Henrik Ullum ^{a,*}

Original Article

Restless legs syndrome is associated with major comorbidities in a population of Danish blood donors

Maria Didriksen ^a, Richard P. Allen ^b, Brendan J. Burchell ^c, Lise W. Thøner ^a, Andreas S. Rigas ^a, Emanuele Di Angelantonio ^{d,e}, Maria H. Nielsen ^a, Poul J. Jennum ^{f,g}, Thomas Werge ^{h,i,j}, Christian Erikstrup ^k, Ole B. Pedersen ^l, Kaspar Nielsen ^m, Mie T. Bruun ^o, Kristoffer S. Burgdorf ^a, Erik Sørensen ^a, Henrik Ullum ^{a,*}

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Original Article

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Migraine is associated with major comorbidities in a population of Danish blood donors

Maria Didriksen ^a, Richard P. Allen ^b, Brendan J. Burchell ^c, Lise W. Thøner ^a, Andreas S. Rigas ^a, Emanuele Di Angelantonio ^{d,e}, Maria H. Nielsen ^a, Poul J. Jennum ^{f,g}, Thomas Werge ^{h,i,j}, Christian Erikstrup ^k, Ole B. Pedersen ^l, Kaspar Nielsen ^m, Mie T. Bruun ⁿ, Kristoffer S. Burgdorf ^a, Erik Sørensen ^a, Henrik Ullum ^{a,k}

DATA COLLECTION

THE DANISH BLOOD DONOR STUDY (DBDS)
 >110,000 Danish blood donors



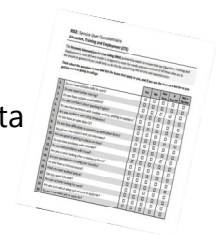
Ongoing national epidemiological cohort of Danish blood donors

We collect:



Whole blood samples

Digital health-questionnaire data



Individual level data from national registers



DATA COLLECTION

Participants were included between May 1st 2015 and February 1st 2017

Self-report data
(DBDS questionnaire)

Register-based data

RLS

Migraine

Sex

Alcohol consumption

Age

Smoking status

Education

Body mass index

Depressive disorder



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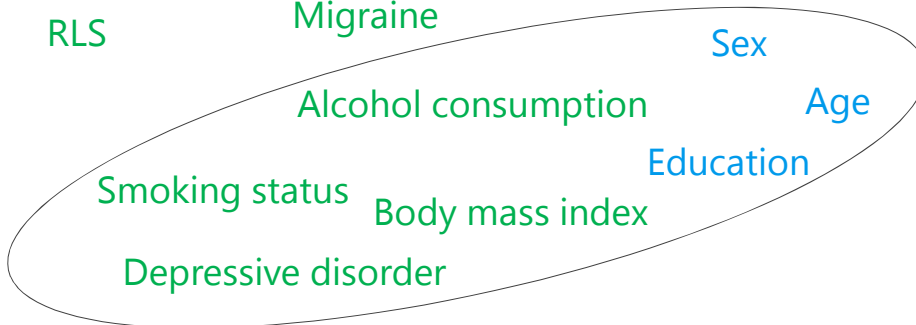
Age

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Depressive disorder



RESULTS

N=20,938 Danish blood donors

5.2% with RLS

10.9% with migraine with visual aura

23.2% with migraine

12.3% with migraine without visual aura

RESULTS

Characteristic	With RLS	Without RLS	P value
Female sex (%)	57.9	45.0	<0.001
Age (mean)	43.0	42.0	0.014
Migraine (%)	32.6	22.5	<0.001
Migraine without aura (%)	16.2	12.1	<0.001
Migraine with aura (%)	16.4	10.5	<0.001
Depressive disorder (%)	6.5	2.8	<0.001
Frequent alcohol intake (%)	37.4	35.7	0.256
Smoker (%)	14.0	12.8	0.231
Low educational level (%)	60.4	57.8	0.092

RESULTS

Multivariable logistic regression analyses with RLS as independent variable

Characteristic	Comparison groups	OR (95% CI)	P value
Migraine		1.52 (1.33-1.73)	<0.001
Migraine without aura	RLS: yes vs. no	1.29 (1.09-1.52)	<0.01
Migraine with aura		1.55 (1.31-1.83)	<0.001

Analyses were adjusted for:

Analyses were adjusted for sex, age, smoking status, alcohol consumption, body mass index, depressive disorder and educational level

TAKE HOME MESSAGE

- Blood donors with RLS are more likely to also suffer from migraine
- RLS can be provoked or aggravated by low iron stores, and therefore deserves specific attention among blood donors
- Further studies are needed to clarify the mechanism behind the observed association



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Restless legs syndrome is associated with increased risk of migraine

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