Bipolaire Stoornis en het Metabool Syndroom

Resultaten van een Cross Sectionele Studie

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Disclosures

- Geen

Bipolaire stoornis…vette pech?

- Levensduur verkort met gemiddeld 10 jaar[1,2]

1 Crump et al., JAMA Psychiatry, 2013; 2 Walker et al, JAMA psychiatry, 2015

Bipolaire stoornis…vette pech?

- Sterfte door hart en vaatziekten 2,5 ↑ tov algemene bevolking [1]

1Roshanaei-Moghaddam et al., Psych Services, 2009

Metabool syndroom (MetS)

- Clustering van risicofactoren op hart-en vaatziekten (HVZ)
- 2 x ↑ risico op HVZ
- 5 x ↑ risico op DM 2
- MetS indien 3 van de 5 risicofactoren afwijkende waarde

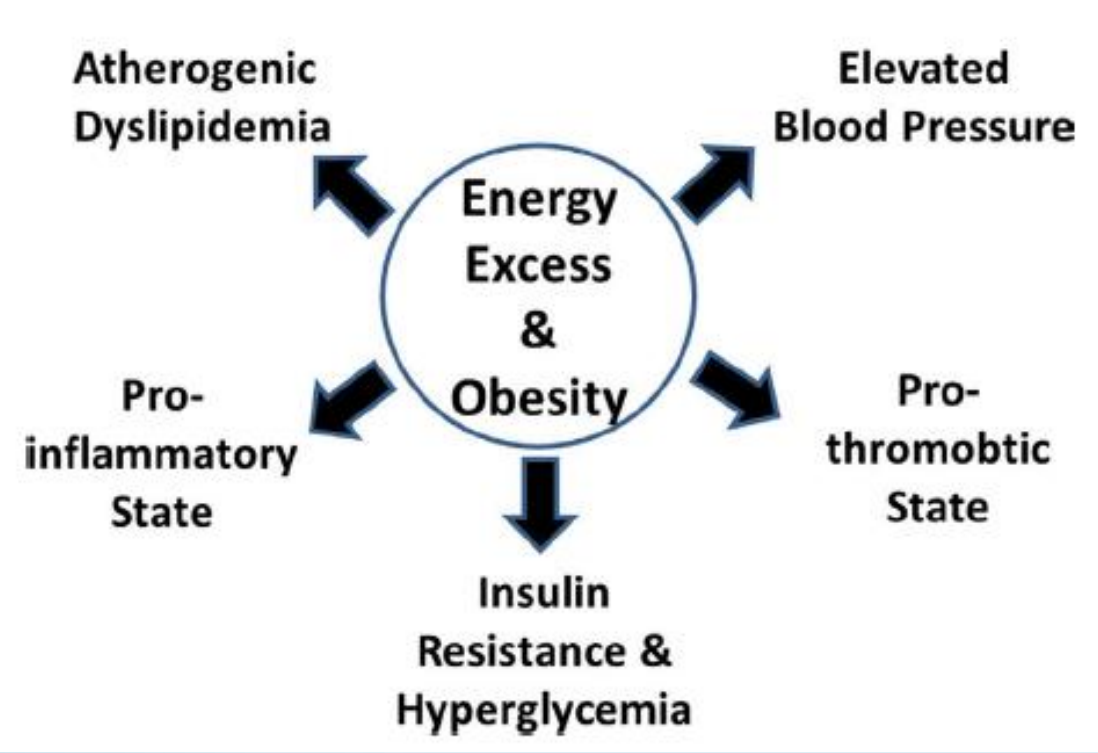
Grundy et al., Trends Cardiovasc Med, 2016

Criteria metabool syndroom volgens NCEP ATP III-A[1]

Meting	Afkapwaarde
↑ Nuchtere glucose	≥ 5,6 mmol/l Ofwel medicatie voor ↑ nuchtere glucose
↑ Bloeddruk	≥ 130 systolisch of ≥ 85 diastolisch Ofwel medicatie voor ↑ bloeddruk
↑ Triglyceriden	≥ 1,7 mmol/l Ofwel medicatie voor ↑ triglyceriden
↓ High Density-Lipoproteine (HDL)	Man < 1.0 mmol/l; Vrouw < 1.3 mmol/l Ofwel medicatie voor ↓ HDL
↑ Buikomvang	Man ≥ 102 cm; Vrouw ≥ 88 cm

[1] Alberti et al., Circulation, 2009

Oorzaak MetS ?



Grundy et al., Trends Cardiovasc Med, 2016

Metabolic Syndrome in Dutch Patients with Bipolar Disorder; a Cross Sectional Study

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Doelen

- Prevalentie MetS in BS
- Associatie klinische en demografische factoren met MetS
- Graad medicamenteuze behandeling van MetS

Methode

- Dossieronderzoek locatie PsyQ Maastricht, zorgpad bipolaire stoornis
- Inclusiecriteria
  - BS I/II/NAO
  - ≥ 18 jaar
  - Farmacotherapie
  - Metabole screening in 2015
- Exclusiecriteria
  - Schizo-affectieve stoornis

Methode

- MetS volgens NCEP-ATPIII-A[1] criteria
- Klinische en demografische variabelen
- Farmacotherapie variabelen
- Analyse met SPSS
  - Univariabele analyse
  - Multivariabele logistische regressie

[1] Alberti et al., Circulation, 2009

Table 1 Demographic and clinical characteristics (N=71)

Characteristic		
Gender , n (%)	Male	28 (39.4)
	Female	43 (60.6)
Race, n (%)	Caucasian	68 (95.8)
	Other	3 (4.2)
Marital Status, n (%)	Single	19 (26.8)
	Married/Living with Partner	35 (49.3)
	Divorced/Widowed	17 (23.9)
Level of Education [a], n (%)	< High School Graduation	6 (9.1)
	High School Graduation	36 (54.6)
	College Graduation/Higher Degree	24 (36.4)
Employment Status, n (%)	Employed	17 (23.9)
	Not Employed	54 (76.1)
Diagnosis, n (%)	Bipolar I	56 (78.9)
	Bipolar II	13 (18.3)
	Bipolar NOS	2 (2.8)
Smoking Status, n (%)	Smoker	36 (50.7)
	Non Smoker	35 (49.3)
Age, mean (SD)		52.5 (10.0)
Ilness Duration in years, mean (SD)		14.8 (10.2)
BMI [b], mean (SD)		28.1 (6.3)

Note. SD= Standard Deviation. NOS = Not Otherwise Specified. BMI = Body Mass Index.
[a] based on n=66 due to 5 missing values
[b] based on n=70 due to 1 missing value

Table 2 Psychotropic Drug Treatment (N=71)

Mood stabilizers [a]	66 (93.0)
Lithium	41 (57.7)
Anticonvulsants	31 (43.7)
Valproic Acid	24 (33.8)
Lamotrigine	5 (7.0)
Carbamazepine	3 (4.2)
SGAs	27 (38.0)
Olanzapine	7 (9.9)
Aripiprazole	3 (4.2)
Quetiapine	16 (22.5)
Risperdone	1 (1.4)
Combination mood stabilizer and SGA	22 (31.0)
Typical Antipsychotics[b]	2 (2.8)
Antidepressants	10 (14.1)
Benzodiazepines	26 (36.6)
Other psychotropic drug treatment [c]	4 (5.6)

Note. SGAs = Second Generation Antipsychotics

[a] 7 patients (9.9%) were on a combination of mood stabilizers

[b] zuclopentixol (n=2)

[c] promethazine (n=2); biperidene hydrochloride (n=1); melatonin (n=1)

Table 3 Prevalence of Metabolic Syndrome and its criteria (N=71)

	Total N=71 (%)	Male N=28 (40%)	Female N=43 (60%)	p [b]	OR (95% CI) [b]
Metabolic Syndrome [a]	30 (42.3)	20 (71.4)	10 (23.3)	< 0.01	8.3 (2.8-24.3)
Central obesitas	37 (52.1)	16 (57.1)	21 (48.8)	0.49	NS
Hypertension	45 (63.4)	22 (78.6)	23 (53.5)	0.03	3.2 (1.1-9.4)
Low HDL cholesterol	19 (26.8)	12 (42.9)	7 (16.3)	0.01	3.9 (1.3-11.6)
Hypertriglyceridemia	29 (40.8)	18 (64.3)	11 (25.6)	< 0.01	5.2 (1.9-14.7)
Hyperglycemia	21 (29.6)	11 (39.3)	10 (23.3)	0.15	NS

Note. HDL = High Density Lipoprotein. NS = Not Significant

[a] Based on the NCEP/ATP-III-A criteria

[b] Analysis met Chi-Square test (χ^2 test)

Table 4. Association of Demographic and Clinical Characteristics with Metabolic Syndrome in Sample of Bipolar Patients (N=71)

	Metabolic Syndrome			OR [95% CI]	
Characteristics	Yes, n=30 (42.3%)	No, n =41 (57.7%)	*p*[a]	Univariate Analysis	Multivariat Analysis[d]
Sex, n (%)			< 0.01		
Male	20 (71.4)	8 (28.6)		8.3 [2.8-24.3]	7.7 [1.5-39.(
Female	10 (23.3)	33(76.7)		1 [ref]	1[ref]
Marital Status, n (%)			0.28		
Single	5 (16.7)	14 (34.1)		0.37 [0.1-1.2]	
Married/ Living with Partner	17 (56.7)	18 (43.9)		1 [ref]	
Divorced/ Widowed	8 (26.7)	9 (22.0)		0.94 [0.3-3.0]	
Level of Education[b], n (%)			0.04		
< High School	5 (18.5)	1 (2.6)		8.6 [0.9-78.8]	7.1 [0.1-479
≥ High School	22 (81.5)	38 (97.4)		1 [ref]	1 [ref]
Employment status, n (%)			0.27		
Employed	25 (83.3)	29 (70.7)		2.1 [0.6-6.6.7]	
Not Employed	5 (16.7)	12 (29.3)		1 [ref]	
Bipolar subtype, n (%)			0.92		
Bipolar I	23 (76.6)	33 (80.4)		1 [ref]	
Bipolar II	6 (20.0)	7 (17.1)		1.2 [0.4-4.1]	
Bipolar NOS	1 (3.4)	1 (2.4)		1.4 [0.09-24.1]	
Smoking Status					
Smoker	13 (37.1)	22 (62.9)	0.39	0.66 [0.3-1.7]	
Non-Smoker	17 (47.2)	19 (52.8)			
Age, mean (SD)	55.6 (8.3)	50.2 (10.6)	0.02	1.1 [1.0-1.1]	1.1 [1.0-1.2
Illness Duration, mean (SD)	17.6 (12.0)	12.7 (8.1)	0.04	1.1 [1.0-1.1]	1.0 [0.9-1.1
BMI[c], mean (SD)	32.3 (6.1)	25.1 (4.4)	< 0.01	1.3 [1.2-1.5]	1.4 [1.2-1.8
Lithium, n (%)	15 (50)	26 (63.4)	0.26	0.6 [0.2-1.5]	
Anticonvulsants, n (%)	17 (56.7)	14 (34.1)	0.06	2.5 [1.0-6.6]	4 [0.8-20.8]
Mood stabilizers, n (%)	29 (96.7)	37 (90.2)	0.39	3.1 [0.3-29.6]	
SGAs, n (%)	12(40.0)	15 (36.6)	0.77	1.2 [0.4-3.0]	
SGAs and Mood stabilizers, n (%)	11(36.7)	11 (26.8)	0.38	1.6 [0.6-4.4]	
Antidepressants, n (%)	4 (13.3)	6 (14.6)	1.0	0.90 [0.2-3.5]	

Note. BMI = Body Mass Index. NOS = Not Otherwise Specified. SGAs = Second Generation Antipsychotics.

[a] Chi-square test/ Fisher's exact test for categorical variables, independent sample t-test for continuous variables.

[b] Based on N=66 due to 5 missing cases.

[c] Based on N=70 due to 1 missing case

[d] Based in N=65 due to 1missing case on BMI and 5 missing cases on Level of Education

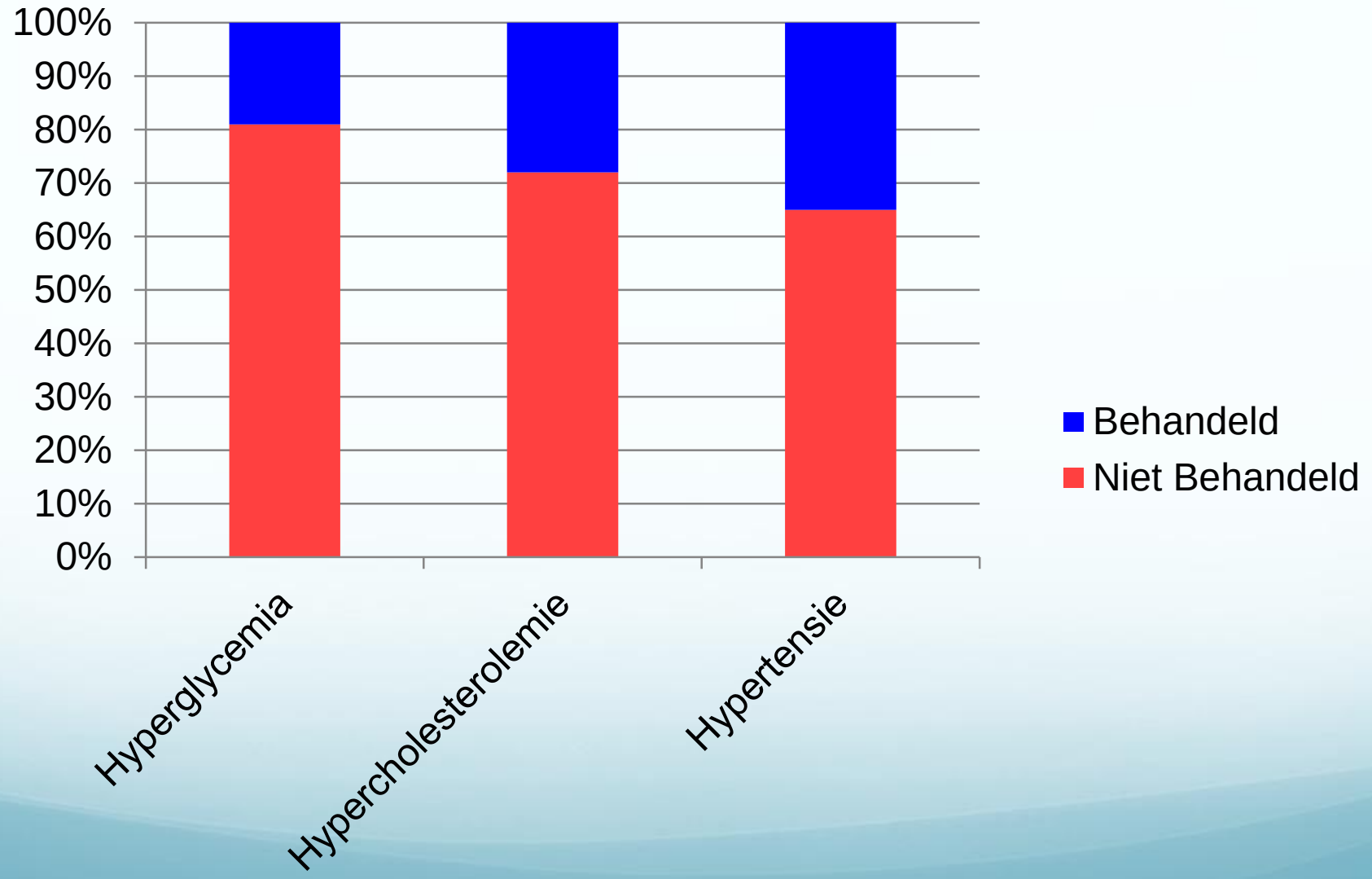
Resultaten

- Prevalentie MetS 42.3 % (N=71)
- Significante associatie in univariabele analyse:
  - Geslacht (mannen 8 x ↑ risico tov vrouwen)
  - Opleidingsniveau (lagere opleiding hoger risico)
  - BMI
  - Leeftijd
  - Ziekteduur
  - Anticonvulsiva naderde significantie

Resultaten

- Multivariabele logistische regressie analyse
  - BMI
  - Geslacht (mannen 8 x ↑ risico tov vrouwen)

Medicamenteuze behandeling MetS



Discussie

- Prevalentiecijfer van 42.3 % hoog tov omringende Europese landen (Frankrijk 18.5 %[1], Belgie 18.3 %[2])
- Ruim een kwart van de NL algemene bevolking heeft MetS[3]
- BS geeft bijna verdubbeling van risico op MetS
- Mannen meer risico?

[1] Godin et al., JClinPsych, 2014; [2] van Winkel, BipDis, 2008; [3] Blokstra et al., NL de maat genomen, RIVM, 2011

Discussie-oorzaken ↑risico?

- Neuro endocriene /immunoinflammatoire/ genetische factoren
- Ongezonde leefstijl
- Minder goede toegang tot medische zorg
- Metabole bijwerkingen psychofarmaca

Take home message

- Bipolaire stoornis geeft een verdubbeling van het risico op metabool syndroom
- Noodzaak vroege monitoring van MetS en het ontwikkelen van (preventieve) behandelinterventies bij patiënten met een BS.

multidisciplinaire richtlijn

Somatische screening bij patiënten met een ernstige psychische aandoening

multidisciplinaire richtlijn

Leefstijl bij patiënten met een ernstige psychische aandoening