Quoi de neuf en gériatrie ?

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J Alzheimers Dis. 2013 ; 35(2): . doi:10.3233/JAD-122371.

Caffeine and cognitive decline in elderly women at high vascular risk

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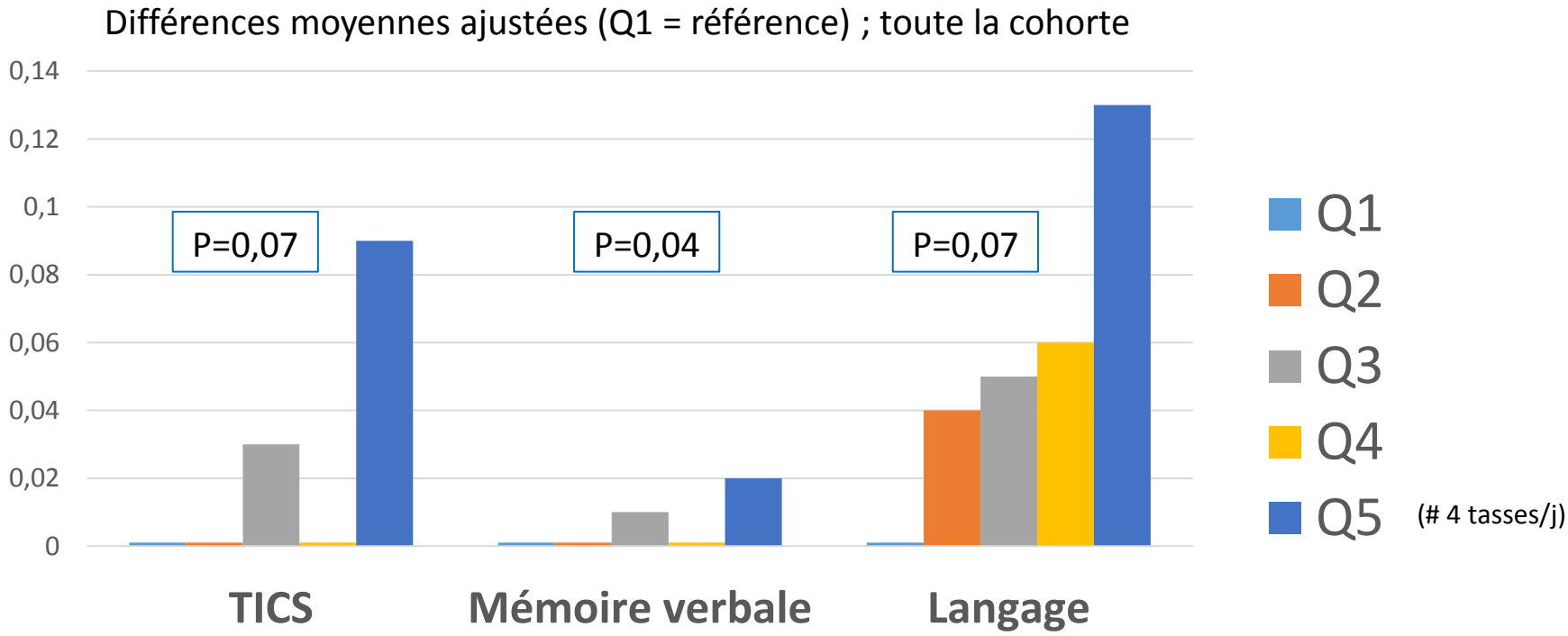
Méthodes

- Etude Women's Antioxydant Cardiovascular Study
- 2475 Femmes > 65 ans et à haut risque CV
- Essai randomisé (négatif) : supplémentation en vitamines B et antioxydants pour la prévention CV
- Questionnaire sur les habitudes alimentaires en 1995-96 ➔ consommation de caféine
- De 1998 à 2006, évaluation cognitive tous les 2 ans : telephone interview for cognitive status (TICS), mémoire verbale, test de langage

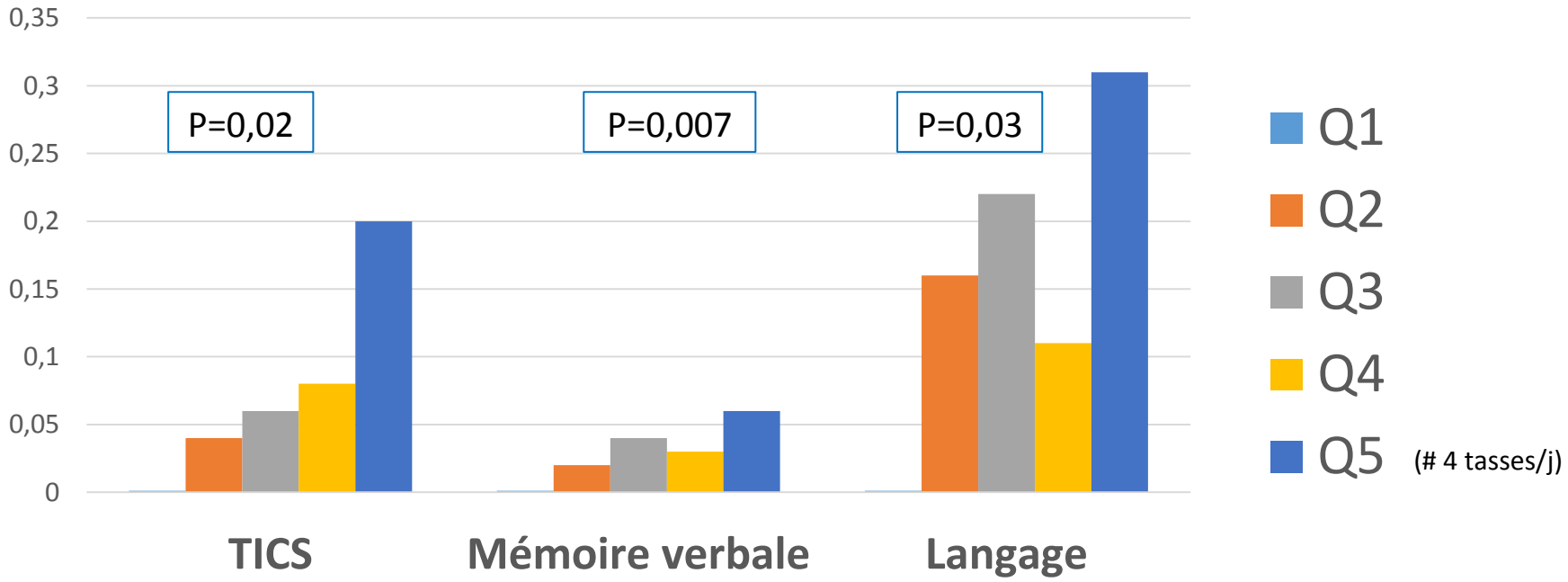
Quelles relations entre la consommation de café à l'inclusion et la survenue d'un déclin cognitif ?

Scores cognitifs en fonction de la consommation de caféine à l'inclusion



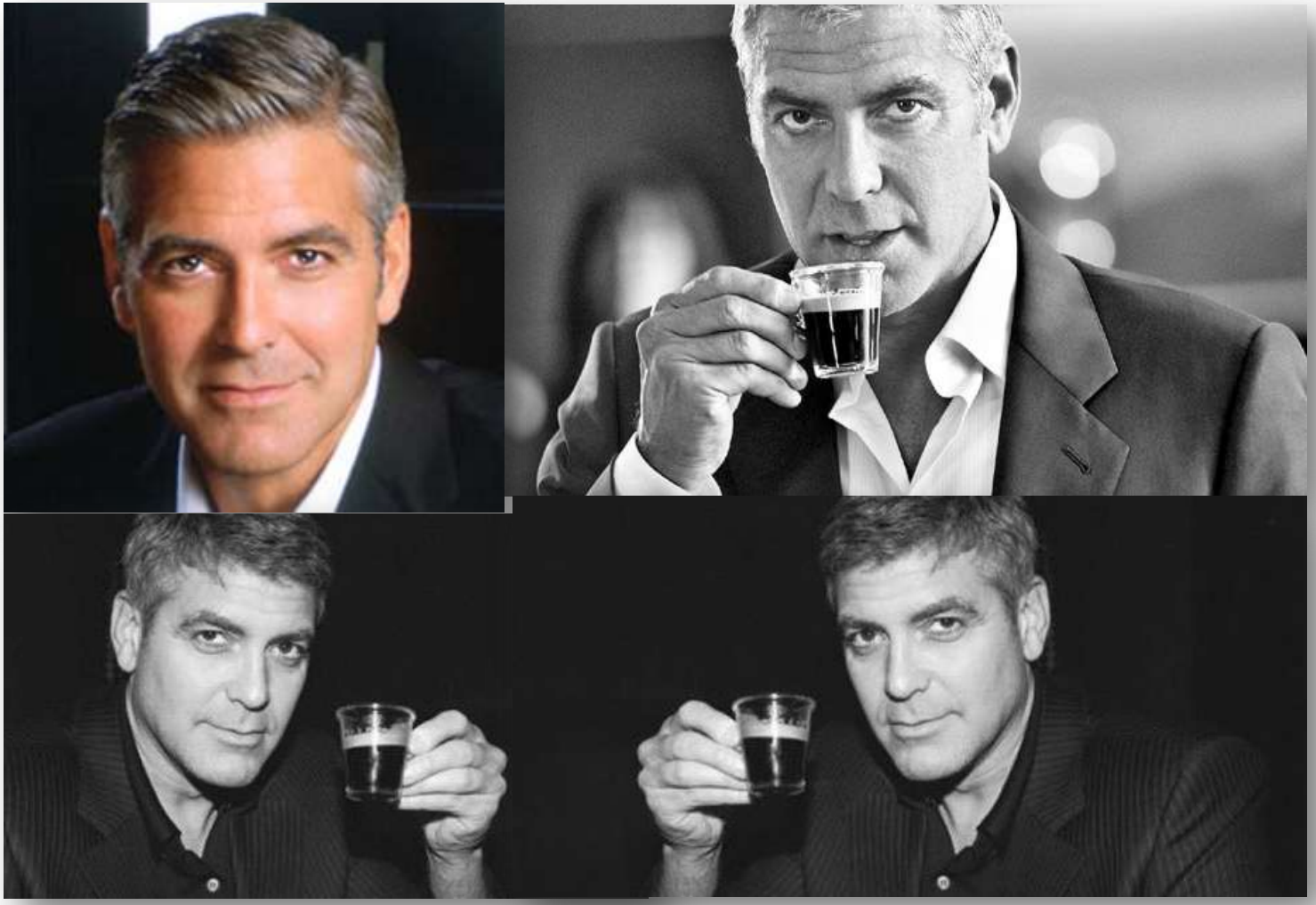
Scores cognitifs en fonction de la consommation de caféine à l'inclusion

Différences moyennes ajustées (Q1 = référence) ; femmes ayant des habitudes alimentaires stables



Conclusion

- Résultats cohérents avec d'autres données de la littérature
- Café : psychostimulant, effet intéressant sur le vieillissement cognitif
- Besoin d'études spécifiques :
  - dose optimale ?
  - timing optimal ?
  - effets adverses ?
  - effets idem chez les hommes ?
  - effets sur le risque de démence ?



Antihypertensive drugs decrease risk of Alzheimer disease

Ginkgo Evaluation of Memory Study

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Wenliang Yao, PhD
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Qian-Li Xue, PhD
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For the Ginkgo Evaluation of Memory (GEM) Study Investigators

ABSTRACT

Objectives: The aim of this study was to determine whether use of diuretics, angiotensin-1 receptor blockers (ARB), angiotensin-converting enzyme inhibitors (ACE-I), calcium channel blockers (CCB), or β-blockers (BB) was associated with a reduced risk of Alzheimer disease (AD) dementia in participants with normal cognition or mild cognitive impairment (MCI).

Methods: Secondary longitudinal data analysis of the Ginkgo Evaluation of Memory Study in older adults at least 75 years of age with normal cognition (n = 1,928) or MCI (n = 320) over a median 6.1-year period using Cox proportional hazard models after adjusting for confounders.

Results: Diuretic use was reported by 15.6%, ARB 6.1%, ACE-I 15.1%, CCB 14.8%, and BB 20.5%. Of the 2,248 participants, 290 (13%) developed AD dementia. Hazard ratio for incident AD dementia among participants with normal cognition was 0.51 in diuretic (95% confidence interval [CI] 0.31–0.82), 0.31 in ARB (95% CI 0.14–0.68), 0.50 in ACE-I (95% CI 0.29–0.83), 0.62 in CCB (95% CI 0.35–1.09), and 0.58 in BB (95% CI 0.36–0.93) users and was not significantly altered when mean systolic blood pressure was above 140 mm Hg. In participants with MCI, only diuretic use was associated with decreased risk (hazard ratio = 0.38, 95% CI 0.20–0.73).

Conclusions: Diuretic, ARB, and ACE-I use was, in addition to and/or independently of mean systolic blood pressure, associated with reduced risk of AD dementia in participants with normal cognition, while only diuretic use was associated with reduced risk in participants with MCI.

Neurology® 2013;81:896–903

Alzheimer & traitement de l'HTA

- Relations complexes
- Hypothèses : certains anti-hypertenseurs pourraient avoir un effet protecteur sur le risque de maladie d'Alzheimer

Dr. Alois Alzheimer

Méthodes

- Essai randomisé GEM négatif
- Prévention de la maladie d'Alzheimer par le gingko biloba versus placebo

Analyse secondaire ➔

- Etude des relations entre l'utilisation des antihypertenseurs et l'incidence de la maladie d'Alzheimer

Méthodes

- 1928 personnes avec une cognition normale +
- 320 personnes avec un MCI
- Suivi en moyenne 6,5 années
- Exposition aux antihypertenseurs ; chronique (à plusieurs visites)
- Etude des cas de démence incidente

		Participants included in analysis (n = 2,248)					
	All participants (n = 3,069)	No antihypertensive medication (n = 643)	ARB (n = 140)	Diuretic (n = 351)	ACE-I (n = 324)	CCB (n = 333)	BB (n = 457)
Sex, n (%)							
Female	1,418 (46.2)	312 (48.5)	72 (51.4)	188 (53.6)	125 (38.6)[b]	157 (47.1)	187 (40.9)
Age, mean (SD)	78.6 (3.3)	78.3 (3.1)	78.5 (3.3)	78.7 (3.5)	78.8 (3.2)	79.3 (3.8)[d]	78.4 (2.9)
Education, mean (SD)	14.3 (3.0)	14.6 (3.1)	13.9 (2.6)	14.2 (2.9)	14.3 (3.1)	14.1 (2.8)	14.4 (3.0)
Body mass index, mean (SD)	27.1 (4.3)	25.7 (3.9)	27.4 (4.0)[d]	28.0 (4.5)[d]	27.4 (4.1)[d]	26.7 (4.1)[d]	27.0 (4.1)[d]
Systolic blood pressure, mean (SD)	133.0 (18.3)	126.1 (15.5)	138.9 (17.5)[d]	131.3 (16.8)[d]	135.0 (18.3)[d]	137.8 (18.7)[d]	135.4 (18.8)[d]
Diastolic blood pressure, mean (SD)	68.9 (9.8)	67.89 (8.7)	71.3 (9.4)[d]	69.2 (9.5)	69.4 (10.5)[c]	69.6 (10.4)[b]	70.1 (10.2)[d]
History, n (%)							
Hypertension	1,306 (42.6)	9 (1.4)	68 (48.6)[d]	155 (44.2)[d]	170 (52.5)[d]	184 (55.2)[d]	186 (40.7)[d]
Diabetes	277 (9.0)	28 (4.4)	9 (6.4)	20 (5.7)	51 (15.7)[d]	22 (6.6)	41 (9.0)[b]
Heart attack	300 (9.8)	24 (3.7)	9 (6.4)	25 (7.1)[c]	18 (5.6)	35 (10.5)[d]	65 (14.2)[d]
Angina	304 (9.9)	17 (2.6)	16 (11.4)[d]	22 (6.3)[b]	25 (7.7)[b]	37 (11.1)[d]	62 (13.6)[d]
Stroke	88 (2.9)	10 (1.6)	4 (2.9)	11 (3.1)	10 (3.1)	7 (2.1)	13 (2.8)
TIA	221 (7.2)	22 (3.4)	11 (7.9)[c]	21 (6.0)	23 (7.1)[b]	40 (12.0)[d]	33 (7.2)[b]
Heart failure	61 (2.0)	4 (0.6)	1 (0.7)	7 (2.0)	7 (2.2)	3 (0.1)	3 (0.6)
MCI	482 (15.7)	101 (15.7)	16 (11.4)	40 (11.4)	48 (14.8)	52 (15.6)	54 (11.8)

Yasar S et al. Neurology. 2013 ; 81:896-903

	AD (n = 290)			
	Model 1 (unadjusted)		Model 2 (adjusted: age, sex, education, income, no. of vascular diseases, BMI, SBP, DBP, MCI)	
Medication[b]	HR (95% CI)	*p* Value	HR (95% CI)	*p* Value
ARB vs none	0.44 (0.26–0.75)	0.02[c]	0.35 (0.19–0.65)	0.001[d]
ACE-I vs none	0.62 (0.44–0.87)	0.005[c]	0.56 (0.37–0.85)	0.001[d]
Diuretic vs none	0.59 (0.43–0.82)	0.002[c]	0.46 (0.32–0.68)	<0.001[d]
BB vs none	0.66 (0.48–0.91)	0.01[e]	0.64 (0.44–0.72)	0.01[e]
CCB vs none	0.78 (0.55–1.10)	0.17	0.67 (0.93–1.04)	0.07

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	Model 1 (unadjusted)		Model 2 (adjusted: age, sex, education, income, no. of vascular diseases, BMI, SBP, DBP, MCI)	
Medication	HR (95% CI)	*p* Value	HR (95% CI)	*p* Value
Diuretic				
Never used				
1	0.98 (0.61-1.59)	0.94	0.71 (0.41-1.23)	0.22
≥2	0.49 (0.39-0.71)	0.0002[b]	0.40 (0.26-0.61)	<0.0001[b]
ACE-I				
Never used				
1	0.55 (0.43-0.97)	0.004[c]	0.47 (0.25-0.88)	0.01[d]
≥2	0.65 (0.45-0.95)	0.003[c]	0.60 (0.38-0.94)	0.02
ARB				
Never used				
1	0.39 (0.14-1.07)	0.07	0.29 (0.09-0.95)	0.04
≥2	0.46 (0.25-0.84)	0.01[d]	0.37 (0.19-0.72)	0.004[c]

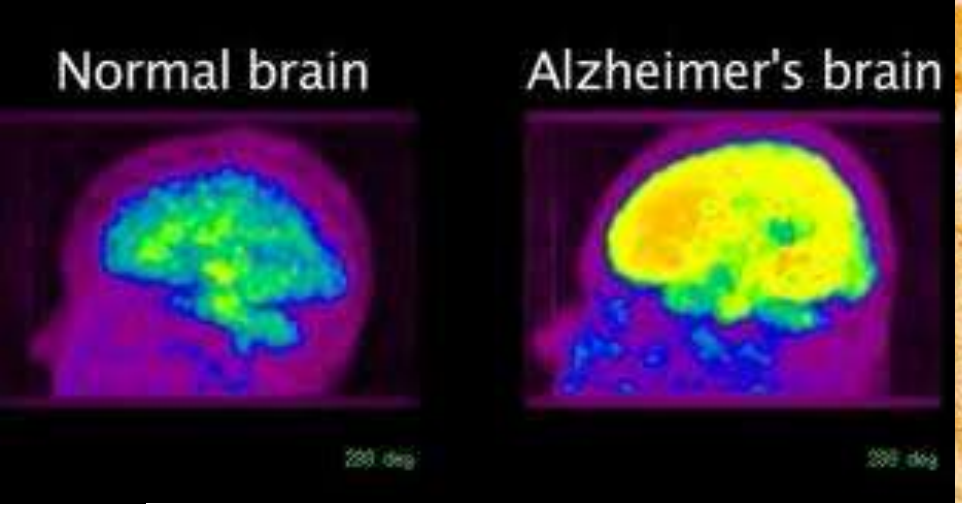
Yasar S et al. Neurology. 2013 ; 81:896-903

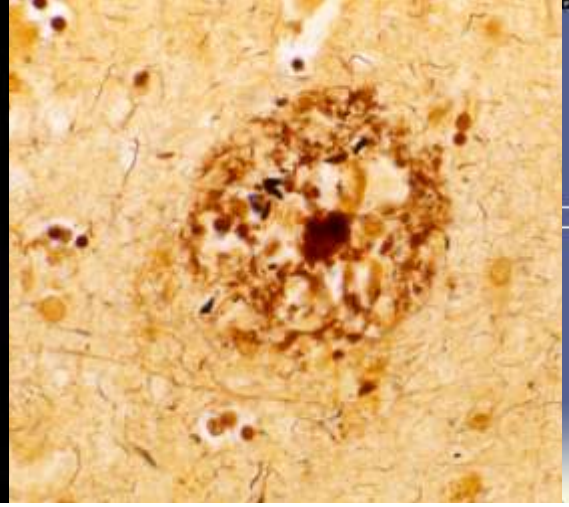
	AD			
	Model 1 (unadjusted)		Model 2 (adjusted: age, sex, education, income, no. of vascular diseases, BMI, SBP, DBP, MCI)	
Medication	HR (95% CI)	*p* Value	HR (95% CI)	*p* Value
CCB				
Never used				
1	0.81 (0.44–1.47)	0.48	0.67 (0.35–1.28)	0.22
≥2	0.77 (0.53–1.14)	0.20	0.67 (0.42–1.08)	0.10
BB				
Never used				
1	0.49 (0.28–0.86)	0.01[d]	0.45 (0.25–0.82)	0.01[d]
≥2	0.74 (0.52–1.04)	0.08	0.70 (0.48–1.03)	0.07

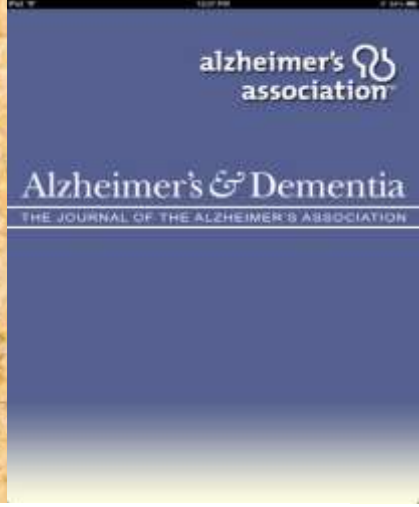
Yasar S et al. Neurology. 2013 ; 81:896-903

Conclusion

- Association significative entre l'utilisation de diurétiques et de bloqueurs du système rénine angiotensine et l'incidence de la maladie d'Alzheimer
- Utilisation de ces antihypertenseurs : effet protecteur sur le risque de maladie d'Alzheimer de façon indépendante de la présence d'une HTA et des autres FdR classiques
- Pas d'association significative avec les antagonistes calciques ou avec les béta-bloquants







ELSEVIER

Alzheimer's & Dementia 9 (2013) 63–75

Alzheimer's & Dementia

Review Articles

The global prevalence of dementia: A systematic review and metaanalysis

Martin Prince[a,*], Renata Bryce[a], Emiliano Albanese[a,b], Anders Wimo[c,d], Wagner Ribeiro[a,e], Cleusa P. Ferri[a,e]

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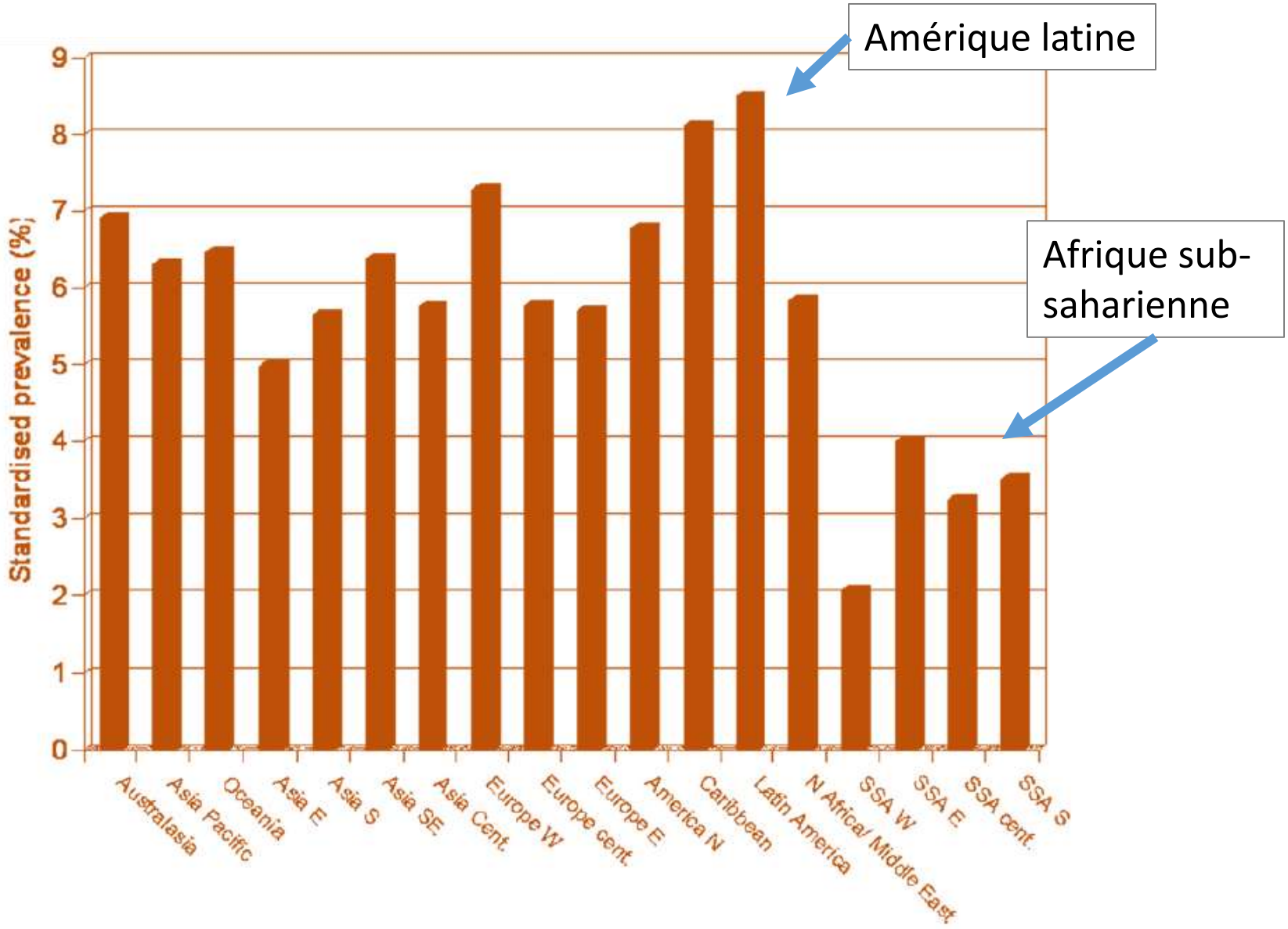
[e]*Department of Psychiatry, Federal University of Sao Paulo, Sao Paulo, Brazil*

Méta-analyse

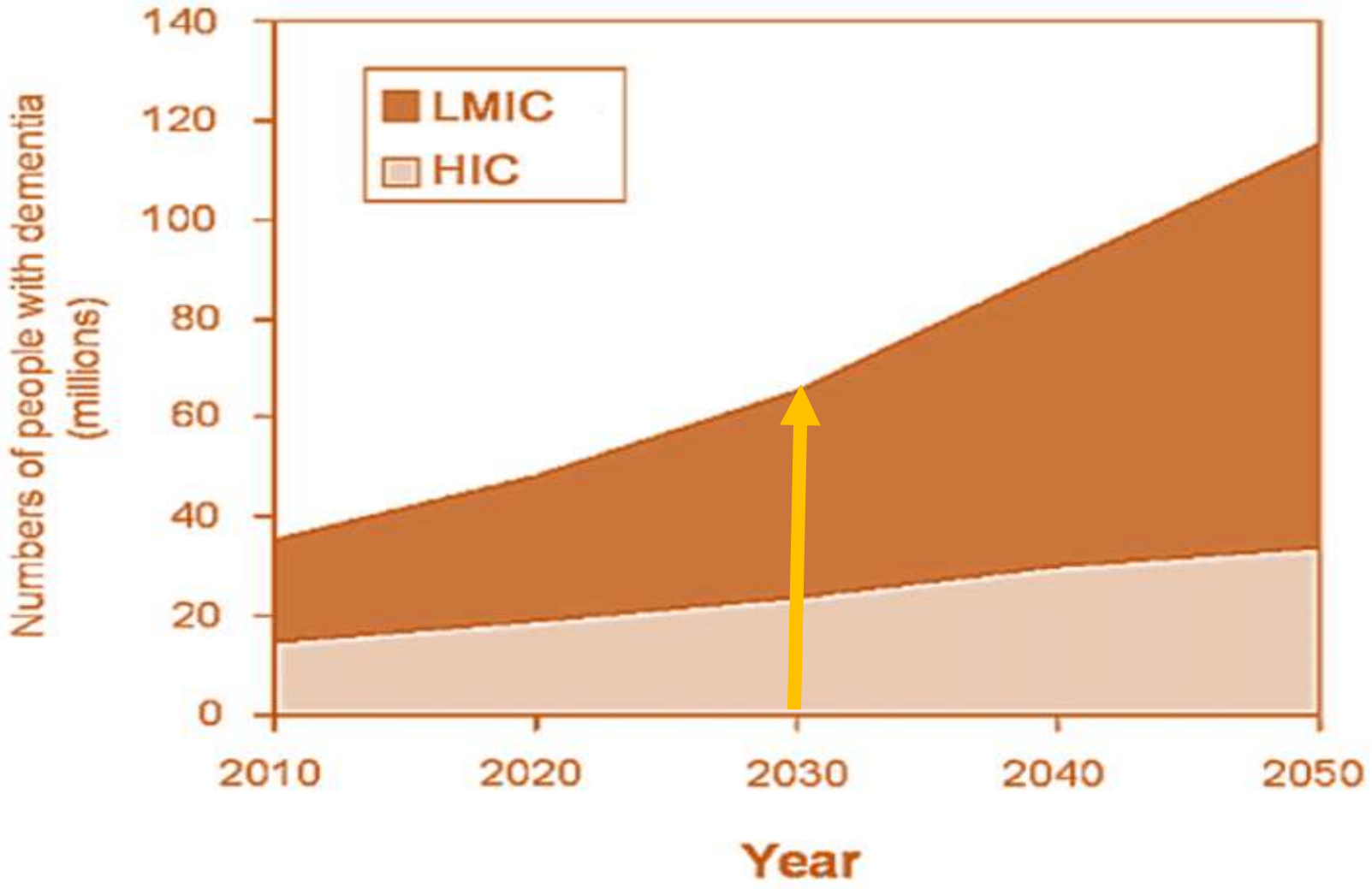
- 157 études sélectionnées
- 4 continents
- Taux de prévalence chez les personnes de plus de 60 ans standardisé sur l'âge et le sexe = 5 à 7 % en fonction des pays.
- Nombre de personnes atteintes de démence en 2010 =

35 Millions

Prévalence en fonction des régions du monde



Evolution prévisible du nombre de personnes démentes



Individualised treatment targets for elderly patients with type 2 diabetes using vildagliptin add-on or lone therapy (INTERVAL): a 24 week, randomised, double-blind, placebo-controlled study

THE LANCET

W David Strain, Valentina Lukashevich, Wolfgang Kothny, Marie-José Hoellinger, Päivi Maria Paldánius

Summary

Background Guidelines suggest setting individualised targets for glycaemic control in elderly patients with type 2 diabetes, despite no evidence. We aimed to assess the feasibility of setting and achieving individualised targets over 24 weeks along with conventional HbA_{1c} reduction using vildagliptin versus placebo.

Methods In this multinational, double-blind, 24 week study, we enrolled drug-naive or inadequately controlled (glycosylated haemoglobin A_{1c} [HbA_{1c}] ≥7·0% to ≤10·0%) patients with type 2 diabetes aged 70 years or older from 45 outpatient centres in Europe. Investigators set individualised treatment targets on the basis of age, baseline HbA_{1c}, comorbidities, and frailty status before a validated automated system randomly assigned patients (1:1) to vildagliptin (50 mg once or twice daily as per label) or placebo. Coprimary efficacy endpoints were proportion of patients reaching their investigator-defined HbA_{1c} target and HbA_{1c} reduction from baseline to study end. The study is registered with ClinicalTrials.gov, number NCT01257451, and European Union Drug Regulating Authorities Clinical Trials database, number 2010-022658-18.

Lancet 2013; 382: 409–16

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See Comment page 378

Diabetes and Vascular Research Centre, University of Exeter Medical School, Exeter, UK (W D Strain MD); **Novartis Pharmaceuticals Corporation, East Hanover, NJ, USA** (V Lukashevich MD, W Kothny MD); **Novartis Pharma AG, Basel, Switzerland**

Diabète du sujet âgé

RISQUE D'HYPOGLYCEMIE

CONTRÔLE DE LA GLYCEMIE

Metformine	• Largement recommandé	**Sulfamides**	• Risque d'hypoglycémie
Insuline	• Injections	**Inhibiteurs DPP4**	• Faible risque d'hypoglycémie
Agonistes GLP1	• Injections	**Glinines**	• Peu étudiées en gériatrie

Place des i-DDP4 dans le tt du Db du sujet âgé ?

Méthodes

- Essai randomisé multicentrique
- Inclusion : diabète de type 2 ; âge > 70 ans ; diabète non traité ou déjà traité mais mal contrôlé
- Définition d'un objectif glycémique (HbA1C) avant la randomisation
- Randomisation :
  - Groupe contrôle : conseils + placebo
  - Groupe intervention : conseils + vildagliptine (50 à 100 mg/j)
- Critères de jugement :
  - atteinte de l'objectif prédéfini et
  - HbA1C

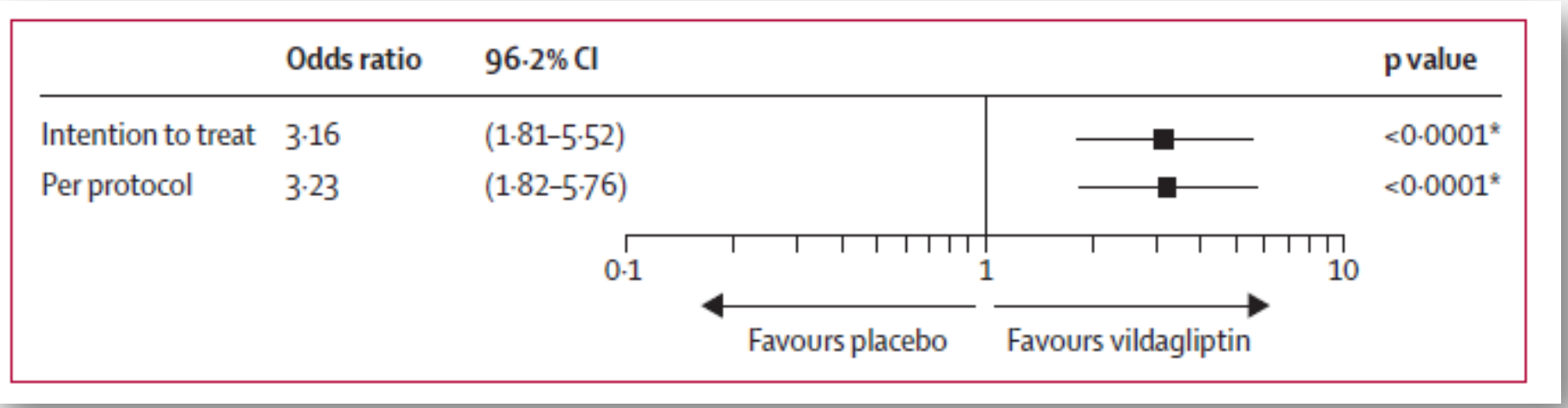
Caractéistiques des patients

	Vildagliptin (n=139)	Placebo (n=139)
Age (years)	75·1 (4·3)	74·4 (4·0)
Range	70·0–97·0	70·0–89·0
Men	73 (52·5%)	53 (38·1%)
Race		
White	135 (97·1%)	134 (96·4%)
Other	4 (2·9%)	5 (3·6%)
Systolic blood pressure (mm Hg)	137·0 (13·3)	137·5 (15·8)
Diastolic blood pressure (mm Hg)	76·8 (8·3)	76·9 (7·9)
Body-mass index (kg/m²)	29·1 (3·8)	30·5 (4·8)
HbA_{1c} (%)	7·9 (0·8)	7·9 (0·7)
Fasting plasma glucose (mmol/L)	9·6 (2·3)	9·9 (2·1)

	Vildagliptin (n=139)	Placebo (n=139)
GFR (MDRD) (mL/min/1·73 m²)		
Normal (>80)	34 (24·5%)	31 (22·3%)
Mild (≥50 to ≤80)	86 (61·9%)	87 (62·6%)
Moderate (≥30 to <50)	19 (13·7%)	21 (15·1%)
Frailty status		
Yes	12 (8·6%)	14 (10·1%)
No	126 (90·6%)	123 (88·5%)
Missing	1 (0·7%)	2 (1·4%)

Strain WD, et al. Lancet 2013;382;409-416.

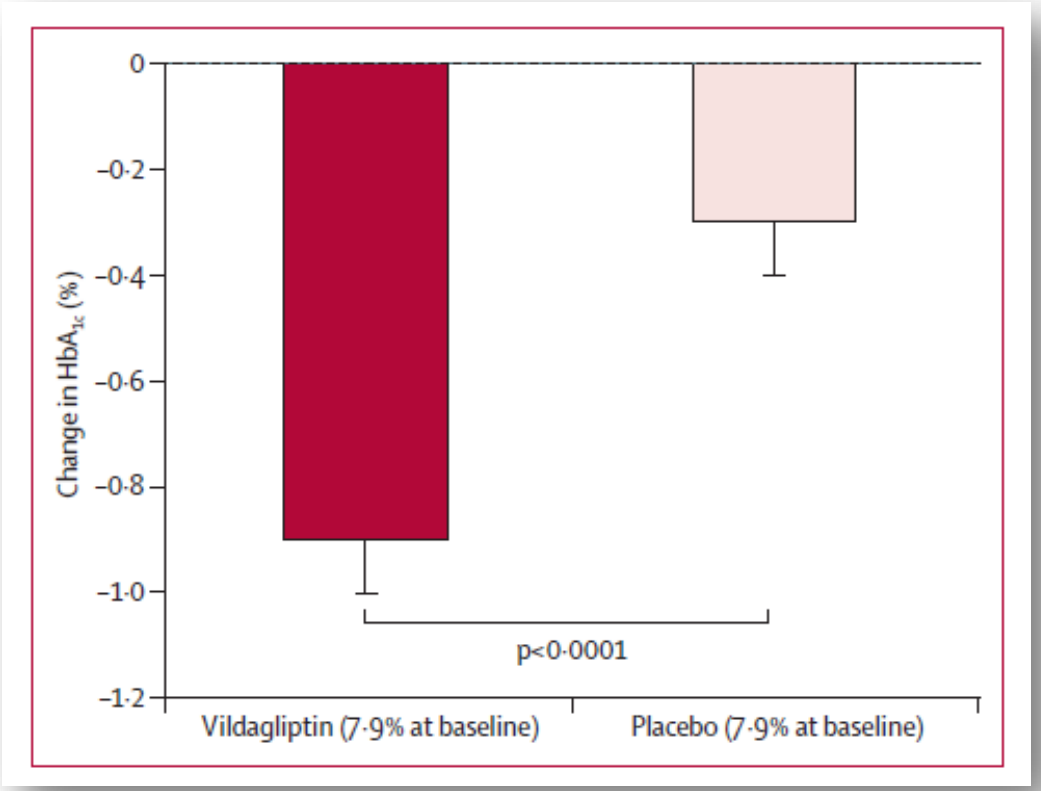
Effets sur l'atteinte de l'objectif fixé



Strain WD, et al. Lancet 2013;382;409-416.

Effets sur l'HbA1C

Variation de HbA1C à 24 semaines (par rapport à la valeur à l'inclusion)



Strain WD, et al. Lancet 2013;382;409-416.

Tolérance

	Vildagliptin (n=139)	Placebo (n=139)
Overall*	66 (47·5%)	63 (45·3%)
SAEs†	8 (5·8%)	5 (3·6%)
Discontinuations due to AEs	6 (4·3%)	3 (2·2%)
Deaths	1 (0·7%)	1 (0·7%)
AEs (of any severity) in ≥5% of participants in any treatment group		
Dizziness	11 (7·9%)	3 (2·2%)
Headache	8 (5·8%)	4 (2·9%)
Nasopharyngitis	7 (5·0%)	7 (5·0%)
Any predefined risk‡	21 (15·1%)	24 (17·3%)
Hepatic-related AEs	0	0
Infection-related AEs	18 (12·9%)	24 (17·3%)
Pancreatitis-related AEs	0	0
Muscle-related AEs	1 (0·7%)	0
Neuropsychiatric-related AEs	1 (0·7%)	0
Lactic-acidosis-related AEs	0	0
Skin or vascular-related AEs	1 (0·7%)	0
Cardiovascular or cerebrovascular AEs	5 (3·6%)	3 (2·2%)

CONCLUSION :

Vildagliptin efficace et sûr chez les patients diabétiques > 75 ans.

Clinical Nutrition 32 (2013) 186–192

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Clinical Nutrition

journal homepage: http://www.elsevier.com/locate/clnu

Randomized control trials

Impact of protein pulse feeding on lean mass in malnourished and at-risk hospitalized elderly patients: A randomized controlled trial☆

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Buts et méthodes

- Les patients gériatriques sont fréquemment dénutris
- Objectifs comparer deux méthodes de supplémentations nutritionnelles (SN)
- Méthodes: 66 Patients de SSR dénutris
- Randomisation:
  - Groupe contrôle : répartition de la SN sur toute la journée
  - Groupe pulsé : 80 % de la SN au déjeuner
- Critère de jugement : gain de masse maigre (DEXA)

Résultats

	Spread diet ($n = 34$)	Pulse diet ($n = 29$)	p	p'
Lean mass index (kg/m^2)	−0.21/0.00 [−0.61; 0.20]	0.38/0.24 [0; 0.60]	0.011	0.005
Lean mass (kg)	−0.41/0.00 [−1.53; 0.49]	0.91/0.61 [0; 1.48]	0.012	0.010
Appendicular skeletal muscle index (kg/m^2)	−0.11/0.00 [−0.20; 0.09]	0.21/0.05 [0; 0.34]	0.047	0.022
Appendicular skeletal muscle mass (kg)	−0.19/0.00 [−0.50; 0.23]	0.51/0.11 [0; 0.84]	0.054	0.044
Body cell mass index (kg/m^2)	−0.04/0.00 [−0.09; 0.10]	0.44/0.33 [0.08; 0.52][a]	0.002	0.004
Body cell mass (kg)	−0.05/0.00 [−0.20; 0.25]	1.08/0.70 [0.18; 1.38][a]	0.003	0.003
Fat mass index (kg/m^2)	0.03/0.00 [−0.04; 0.22]	−0.15/−0.01 [−0.23; 0]	0.170	0.183
Fat mass (kg)	0.04/0.00 [−0.11; 0.49]	−0.32/−0.02 [−0.53; 0]	0.203	0.271
Hand grip strength (N)	10.88/3.5 [0; 21]	−0.17/0.00 [−1; 12]	0.411	0.271
Activities of daily living score	−0.03/0.00 [0; 0.5]	0.55/0.00 [0; 1]	0.125	0.118

Augmentation significative de la masse maigre appendiculaire et de la masse cellulaire corporelle

Archives of Gerontology and Geriatrics 56 (2013) 478–481

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Archives of Gerontology and Geriatrics

journal homepage: www.elsevier.com/locate/archger

Effects of hippotherapy on mobility, strength and balance in elderly☆

Thais Borges de Araújo[a,1], Ricardo Jacó de Oliveira[a,1], Wagner Rodrigues Martins[b,1,*], Marcio de Moura Pereira[a,1], Fernando Copetti[c,2], Marisete Peralta Safons[a,1]

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ARTICLE INFO

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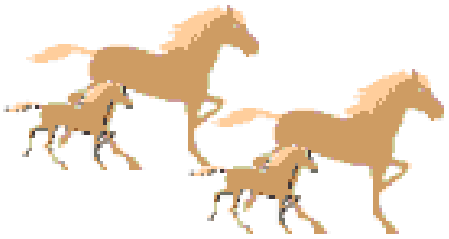
ABSTRACT

Objectives: To assess the chronic effects of hippotherapy on functional mobility, muscle strength and balance in elderly.
Methods: 28 volunteers, between the age of 60 and 84, were randomly recruited and divided in

Hippothérapie

- Oscillations rythmiques tri-dimensionnelles
  - Stimulation des réflexes posturaux
  - Stimulation neuromusculaire
  - De l'ensemble du corps

➔ améliore force musculaire, équilibre et coordination



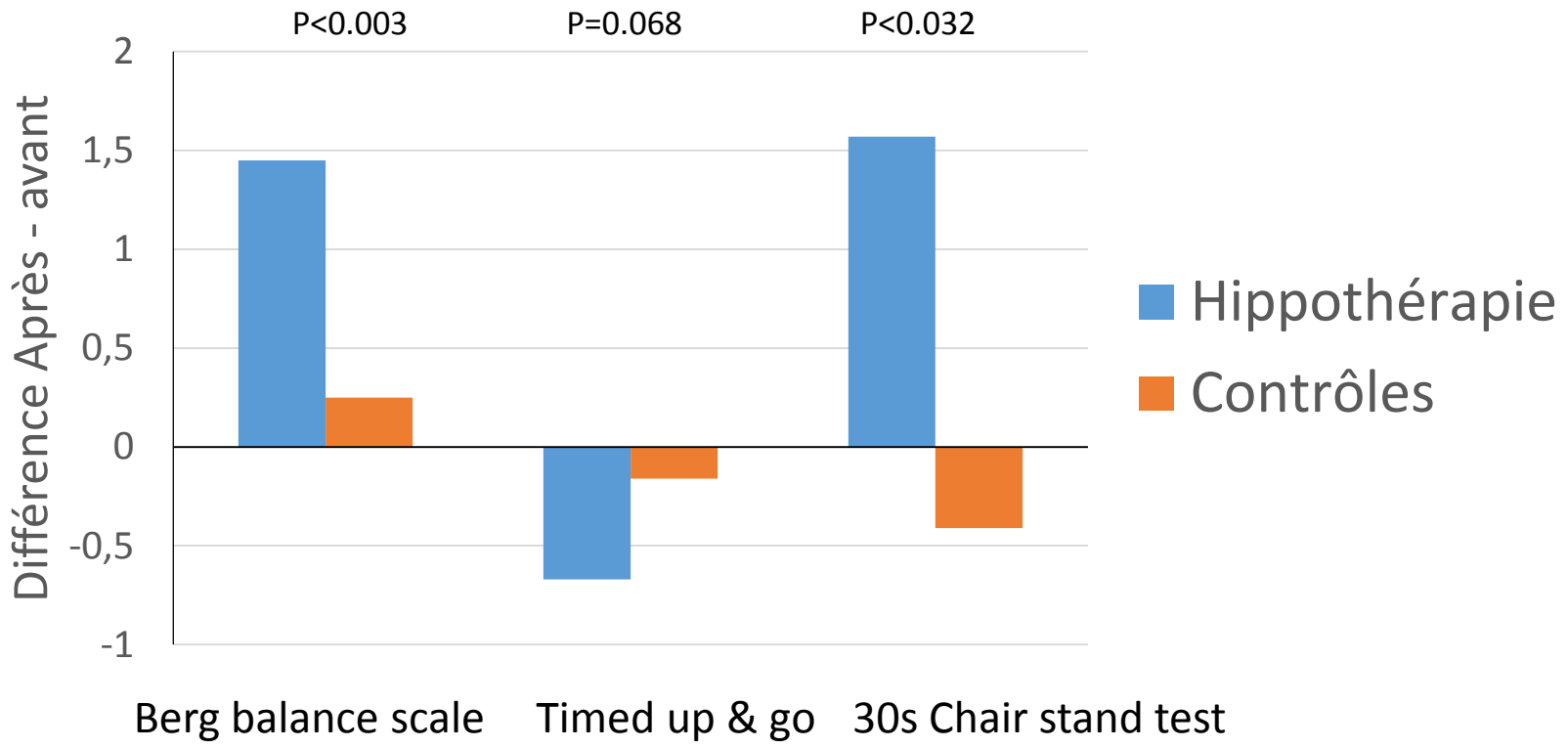
- Autisme
- Trisomie 21
- Sclérose en plaque

Résultats positifs

Etude des effets de l'hippothérapie chez des sujets âgés en bonne santé

- 28 sujets âgés en bonne santé n'ayant jamais fait d'équitation
- Randomisation ➔
  - Groupe expérimental : programme d'activité physique centrée sur l'équitation, 2 fois par semaine pendant 8 semaines : exercices de difficulté croissante
  - Groupe contrôle

Résultats



Borges de Araujo T, et al. Arch Gerontol Geriatr. 2013; 56 : 478.

Perspectives

- Les auteurs prévoient un essai randomisé pour étudier les effets sur la vitesse de marche de

  l'hippothérapie

versus

  l'hippopothérapie

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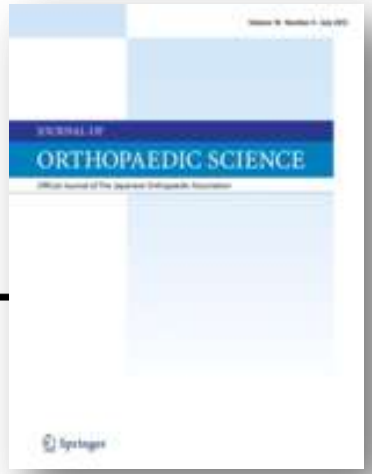

ORIGINAL ARTICLE

Why not use your own body weight to prevent falls? A randomized, controlled trial of balance therapy to prevent falls and fractures for elderly people who can stand on one leg for ≤15 s

Keizo Sakamoto · Naoto Endo · Atsushi Harada · Takenori Sakada · Kazuyo Tsushita · Kiyoshi Kita · Hiroshi Hagino · Akinori Sakai · Noriaki Yamamoto · Tetsunori Okamoto · Meigen Liu · Akatsuki Kokaze · Hiromichi Suzuki

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Station unipodale : test d'évaluation du risque de chute

- Utilisation du test à visée rééducative
- 865 sujets âgés >75 ans
- Vus en orthopédie pour divers motifs
- Test Station unipodale < 15 sec

- Randomisation
  - Contrôle : prise en charge usuelle
  - Programme : exercices de station unipodale (# 1 mn) 3 fois /j

Résultats à 6 mois : hommes

	Male		
	Exercise group (%)	Non-exercise group (%)	Statistical *p* value
Number	86	78	
Weight (kg)	58.4 ± 9.8	58.8 ± 10.9	0.815§
Height (cm)	158.2 ± 7.9	159.4 ± 6.8	0.290§
One leg time (right)	17.7 ± 35.1	6.4 ± 5.0	0.004§
One leg time (left)	19.3 ± 44.4	6.7 ± 6.0	0.011§
Cases of fracture	1 (1.2)	1 (1.3)	0.945#
Falls yes/no	10 (11.6)	14 (17.9)	0.253#
No. of falls	0.2 ± 0.8	0.5 ± 1.7	0.183§
ADL independence	82 (95.3)	72 (92.3)	0.416#
Adverse event	1 (1.2)	0 (0.0)	0.339#

Résultats à 6 mois : femmes

	Female		
	Exercise group (%)	Non-exercise group (%)	Statistical *p* value
Number	324	377	
Weight (kg)	49.3 ± 7.9	49.6 ± 9.1	0.641[§]
Height (cm)	146.6 ± 6.1	146.2 ± 6.1	0.401[§]
One leg time (right)	16.2 ± 21.6	7.2 ± 7.9	<0.000[§]
One leg time (left)	15.0 ± 21.2	6.1 ± 6.1	<0.000[§]
Cases of fracture	3 (0.9)	10 (2.7)	0.091[#]
Falls yes/no	46 (14.2)	78 (20.7)	0.025[#]
No. of falls	0.3 ± 1.2	0.3 ± 0.7	0.687[§]
ADL independence	313 (96.6)	345 (91.5)	0.005[#]
Adverse event	4 (1.2)	0 (0.0)	0.031[#]

Conclusion

- Intervention simple et peu couteuse
- Autorééducation
- Améliore l'équilibre chez tous
- Diminue le risque de chute chez les femmes
- Effet positif sur l'indépendance fonctionnelle chez les femmes

Record du monde 2013
de station unipodale :
18 heures 23 mn !