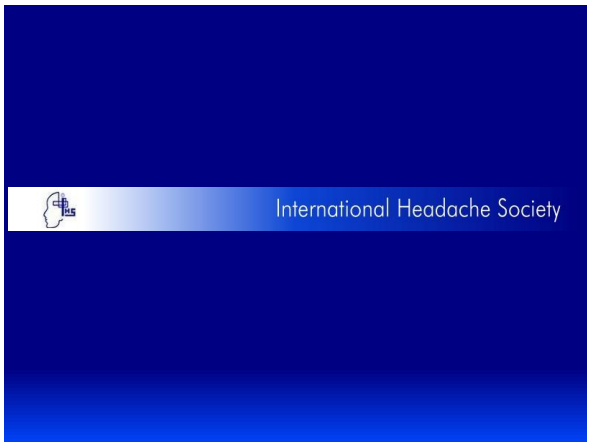

Medication Overuse Headache

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Baku, 31.05.2008

MOH : epidemiology

- Population based : (3-4%) 1-1.5%
  - Castillo et al, 1999; Prencipe et al, 2001; Lanteri-Minet et al, 2003; Colas et al, 2004; Zwart et al, 2004
  - Scher et al, 1998
  - Lu et al, 2001; Wang et al, 2000
- Clinical series : 10%
  - Micielli et al, 1987
  - Granella et al, 1988
- Up to 25%
  - Zeeberg et al, 2007

Chronic headache: epidemiology

- Population based studies in Georgia and Moldova
  - Russian Linguistic Subcommittee and
  - ***Lifting the Burden of Headache Worldwide***
  - Georgia: N = 1500
    - Prevalence of CH = 8%
  - Moldova: N = 2000
    - Prevalence of CH = 8%

MOH: history

- Migraine patients who overused ergots
  - Peters and Horton, 1951

Chronic headache

- Chronic headache ≥ 15 days / month
- Chronic migraine
  - With medication overuse
  - Without medication overuse
- Chronic TTH
  - With medication overuse
  - Without medication overuse

MOH: history

- Drug induced headache
  - Chronic headache ≥ 15 days per month
  - intake of headache drugs ≥ 15 days per month for ≥ 3 months
  - Improvement of MOH after withdrawal
    - IHC, 1988

MOH: history


CME **Features of medication overuse headache following overuse of different acute headache drugs**

V. Limmroth, MD; Z. Katsarava, MD; G. Fritsche, PhD; S. Przywara, MD; and H.-C. Diener, MD, PhD

Abstract—*Objective:* To investigate pharmacologic features such as mean critical duration until onset of medication-overuse headache (MOH) (MCDO), mean critical monthly intake frequencies (MCMIF), and mean critical monthly dosages (MCMD) as well as specific clinical features of MOH after overuse of different acute headache drugs, with a focus on newly approved triptans. *Methods:* In a prospective study 98 patients with MOH according to International Headache Society (IHS) criteria underwent standardized inpatient withdrawal from their medication. Patient diaries and structured interviews were used to calculate the MCDO, MCMIF, and MCMD for each substance group. *Results:* The MCDO was shortest for triptans (1.7 years), longer for ergots (2.7 years), and longest for analgesics (4.8 years). The MCMIF was lowest for triptans (18 single doses per month), higher for ergots (37), and highest for analgesics (114). Although patients overusing ergots and analgesics typically had a daily tension-type headache, patients with triptan-induced MOH were more likely to describe a (daily) migrainelike headache or an increase in migraine frequency. *Conclusion:* Overuse of triptans leads to MOH faster and with lower dosages compared with ergots and analgesics. Clinical features of MOH depend on the type of overused headache medication. Pharmacologic and clinical characteristics of triptan-induced MOH call for the renewal of the current IHS classification.

NEUROLOGY 2002;59:1011–1014

- Triptan induced MOH
  - Kaube et al, 1994
  - Limmroth et al, 2002
- Medication overuse headache
  - Chronic headache ≥ 15 days per month
  - intake of headache drugs ≥ **10-15** days per month for ≥ 3 months
  - Improvement of MOH after withdrawal
    - IHC, 2004

German Headache Consortium

Baseline = 6000

Responder = 3357 (56%)

Headache = 2105 of 3357, 63%

Episodic Headache

Chronic Headache
142 of 3357, 4.2%

1 year responder
1467 of 2105, 78%

New CH cases
44 (2.1%)
incidence

Chronic headache
34 (24%)
persistence

New CH cases: incidence

Headache Frequency at baseline	New CH
1-4 days / month (N = 1166)	21 (1.8%)
5-9 days / month (N = 256)	5 (1.9%)
10-14 days / month (N = 117)	**18 (13%)**

CH: risk factors

	Odds Ratio	95% CI	p
HA frequency at baseline 10-14 d/m vs. 1-4 d/m	8.5	[4.4 – 16.5]	0.001
Frequent drug intake (>10 days / month)	4.6	[2.4 – 9.0]	0.001
Chronic back pain	3.8	[1.8 – 6.7]	0.001
≥ 2 drugs	2.6	[1.2 – 5.8]	0.016

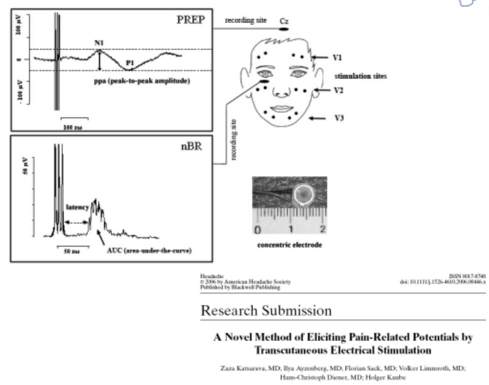
Psychologische Prädiktoren

	OR	95% CI	p
Depression (CESD)	1.8	0.8-4.7	ns
Pain coping ability	2.4	1.2-4.8	0.001
Every day life stress	1.9	1.02-3.8	0.003

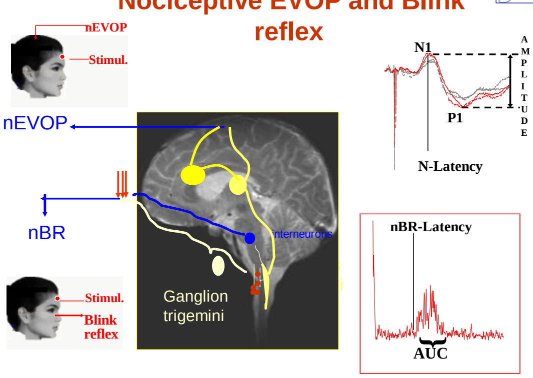
Inzidenz

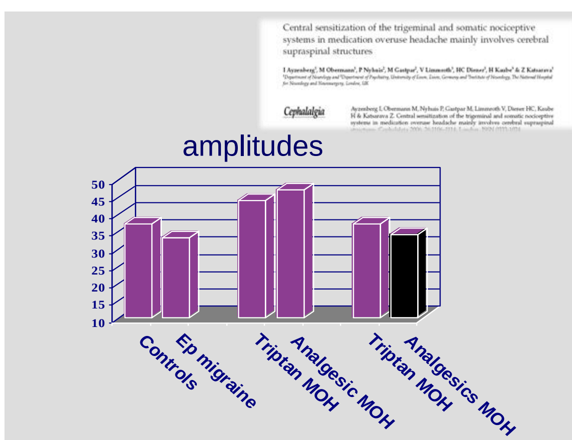
Medication	CH	no
EA (N = 1074)	28; 2.6%	046
KA (N = 147)	7; 4.8%	140
T (N = 16)		16
E (N = 1)	0	1
Op. (N = 4)	0	4
No medication (N = 332)	9; 2.6%	323

OR = 1.8 95% CI [0.8 – 4.3]



Nociceptive EVOP and Blink reflex

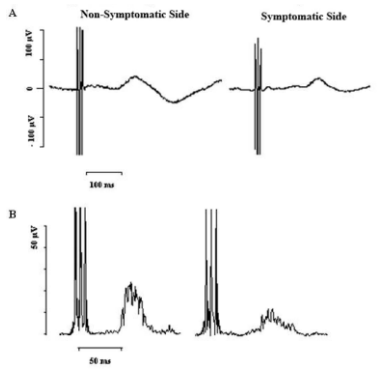


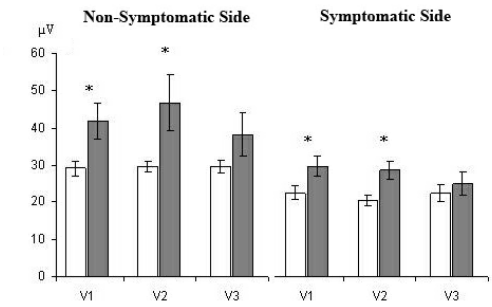


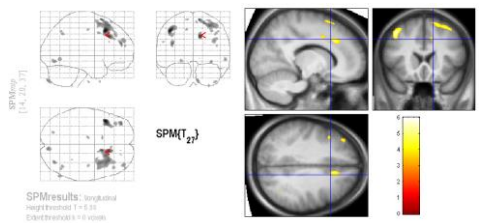
Pain chronicity in TN

- **Episodic TN**
- **Chronic TN**
  - **in both groups HA vs. non HA**
  - **episodic vs. chronic**

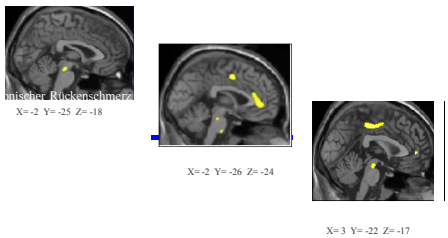
Obermann et al, Neurology 2007



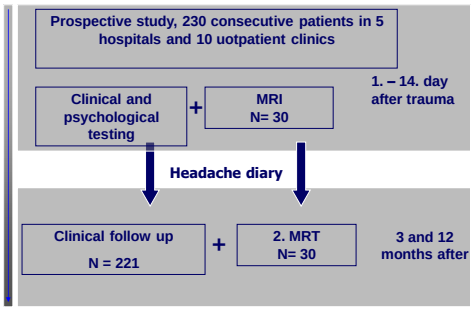




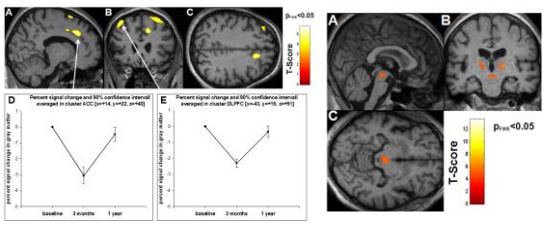
VBM in chronic pain



Chronic HA after head/neck whiplash injury



Gray matter changes over time



Gray matter decrease in ACC and DLPFC - resolved after one year

Gray matter increase in PAG

Inpatient vs. Outpatient Withdrawal

Outpatient

- Patient highly motivated/self-disciplined
- Pt overuses triptans or other single-substance therapy
- Not for pts using barbiturates or tranquilizers or several different drugs
- No other signs or side effects of medication overuse
- No depression or anxiety

Inpatient

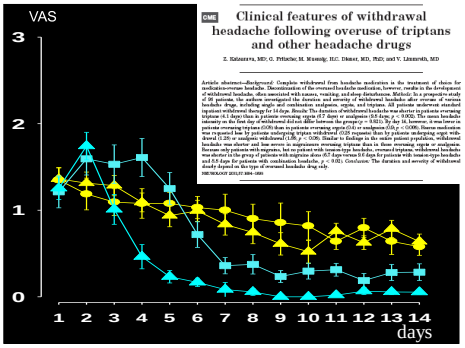
- Patient failed outpatient withdrawal
- Patients using barbiturates or tranquilizers or several different drugs
- Other signs or side effects of medication overuse present
- Patients with depression or anxiety

Diener HC: Guidelines for diagnostic and treatment, German Neurological Society

Treatment

- Education
- Withdrawal symptoms = replacement
- Long term treatment
  - Preventive treatment
  - Psychological support

MOH : withdrawal Katsarava et al, 2001; Göbel et al, 1996



Withdrawal Therapy

- Boe et al, Neurology 2007; 69: 26-31
  - 100 Patienten with MOH
  - Prednisone 60, 40mg, 20mg every 2 days vs. Plazebo
  - Prednisone is NOT superior
- Our Interim analysis is negative

MOH : relapse rates

follow up	%	predictors	authors
3 months	44%	--	Linton-Dalhöf, 2001
4 months	28%	opioids	Pini, 1996
12 months	35%	1.TTH 2.komb. anal.	Katsarava, 2003
21 months	25%	duration of overuse	Tfelt-Hansen, 1981
17 months	24%	--	Baumgartner, 1989
2.9 years	34%	1.TTH 2.komb. anal.	Diener, 1989
4 years	43%	komb. anal.	Fritsche, 2001
5 years	40%	TTH	Schnider, 1996
5 years	33%	--	Tribl, 2001
5.9 years	21%	TTH	Suhr, 1999

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