Trigeminal-autonome Cephalalgias

Conflicts of Interests: None

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Learning Objectives

after the course participants will be able to:

- diagnose trigemino-autonomic headaches and know the 2 most important secondary causes
- distinguish cluster headache from the other trigeminal autonomic headaches
- know treatments of the acute attacks
- know several treatment options for preventing attacks
- have additionally learned therapeutic tips and tricks

Trigeminal-Autonomic Cephalalgias (TAC's)

	Cluster headache	Paroxysmal hemicrania	SUNCT syndrome	Hemicrania continua	Hypnic headache
Epidemiology					
Sex (male:female)	3:1	1:3	8:1	1:1·8	1·8:1
Prevalence	0·9%	0·02%	very rare	rare	very rare
Age of onset (years)	28–30	20–40	20–50	20–30	40–70
Pain					
Quality	Piercing, throbbing	Piercing	Stabbing	Pressing	Pulsating
Intensity	Extremely high	High	Moderate to high	Moderate	moderate
Localisation	Periorbital	Orbital, temporal	Orbital, temporal	Unilateral, temporal	bifrontal, median
Duration of attack	**15–180 min**	2–45 min	5–250 s	Fluctuating, constant, with superimposed attacks	30–120 min
Frequency of attacks	1–8 per day	1–40 per day	1 per day to 30 per h		1–2 per day
Autonomic symptoms	++	++	+	(+)	–
Circadian rhythmicity	+	(–)	–	–	+
Alcohol trigger	++	(+)	(–)	–	–
Treatment					
Acute treatment of choice	100% oxygen, 15 L/min intranasal lidocaine, sumatriptan	Aspirin (naproxen, diclofenac)	None	Diclofenac	Caffeine
Preventive treatment of choice	Verapami[illegible] cortico[illegible] topiramate, met[illegible]	Indomet[illegible]	Lamo[illegible]	Indomet[illegible]	Verapa[illegible] n
Second-line treatment and occasional reports	V[illegible] d, ergotamine, [illegible] in, pizotifen, indo[illegible] etacin	[illegible] roids, [illegible] mil, [illegible] azolamide, coxib	[illegible] entin, [illegible] amazepine, valproic acid, topiramate	[illegible] en, caffeine, [illegible] costeroids	[illegible] ne, atenolol, [illegible] etacin
	Verapamil	Indomethacin	Lamotrigin	Indomethacin	Verapamil

Adapted from references 55 and 84.

Table: Comparison of cluster headache with related headache syndromes

May A; Lancet 2005; 333: pages 843-55

abortive therapy

Cluster headache

Medication	Dosage	Remarks
O_2 (100%)	7-12 l/min (in a upright sitting position, using a mask)	• no side effects • no CI • good efficacy (60% response)
Triptans Sumatriptan s.c. Sumatriptan nasal Zolmitriptan nasal	 6 mg 20 mg 5 mg	• up to 75% of patients report headache free after 5-20 min
Lidocain intranasal	1 ml 4-10% (*ipsi*lateral to the pain. The head should be reclined at a 45° and rotated to the affected side by 30° to 40°)	• not expensive • nearly no side effects/CI • response: 30%

Preventative

Cluster headache

Medication	Dosage	Remarks
Verapamil	320-800 mg (start 3x80 mg , increase every 10 d)	• medication of 1st choice • Cave combination with ß-blockers • ECG
Lithium	600-1500 mg blood level 0.2-1.3mmol	• up to 70% response • regular control of serum level • Cave fever and operations
Topiramate	100-200 mg (every 1-2 Wochen increase 25 mg)	• 7-9% cognitive side effects • kidney stones (H_2O ⇑) • control of liver and renal blood

Key message

CH has some **key features:**

- unilateral orbitotemporal pain
- autonomic symptoms
- Circadian/circannual rhythmicity

Treatment: Attacks

- Oxygene inhalation
- Triptans (s.c or intranasal)

Treatment: Preventative

- Verapamil
- Topiramate
- Lithium
- CRRP-antibodies

Treatment: Other Tips

- Try Indometacin
- Use cortisone to bridge
- Use GON-Block before invasive procedures