9th World Congress on Pain

Vienna, Austria August 22-27, 1999

Participant Number
14313

Vienna, August 1999

CONFIRMATION OF ATTENDANCE

This is to certify that

G.Luigi Fanchiotti

has participated in the

9th World Congress on Pain

held in Vienna, Austria

August 22-27, 1999,

and has paid the registration fee

in the amount of

ATS 6050,-

The Congress Organizer

International Association for the Study of Pain
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Headache : from classification to clinic
GL Fanchiotti

The IHS classification criteria for migraine are really useful for the diagnosis of head pain. It also helps all the clinicians dealing with migraine to use a common language when they include patients in trials comparing different treatments. Migraine is divided in two main type: with and without aura: they substantially differ not only for the aura but also for the pathogenesis. We would describe the phases of the migraine attacks with particular reference to their pathogenesis. First of all, during the prodromic phase most patients feel that the attack is approaching and refer mood disturbances or they "feel strange"; this status is related to a serotonin release from platelets and the sensations that the patients report are related to the hypothalamic involvement. If the aura phase arises, the symptoms are associated with a decreasing in cerebral blood flow, spreading from occipital to frontal area with a speed of 2-3mm/min. A reactive vasodilatation follows the previous phase and correspond to the start of the pain. To explain this sequence three main hypothesis are available. The older is the vascular hypothesis (Wolff) that recognize in the brain vessels vasodilatation the main mechanism causing the attack. Recently the Moskowitz group demonstrated the role of the perivascular

sterile inflammation in the migraine phatogenesis. Substance P and CGRP release related to a trigeminal trigger is the hypothesis well accreditated now. Shifting from theory to the practice we would describe the results of a recent big epidemiological study conducted in Italy. Looking at the results we could conclude that the IHS criteria well represents the real patient profile. Most patients refer the pain as severe and 54% report attacks frequency of 1-3 per month. The bed rest is required for 23% of the patient. This data should be taken in account when we attempt to calculate the indirect cost of the migraine. The migraine acute attack therapy start from simple analgesics when the severity is mild or moderate and go-up to triptans when the severity is moderate or severe. If the analgesic failed in mild attacks, the triptans should be adopted: we suggest the suppositories that we found effective within 2 hours and cheap. Moving from moderate to severe attacks the triptans starting dose are indicated. The resistants attacks need an effective and fast treatment, so we suggest the triptans in nasal spray formulation or subcut. In some migraine types also ergots are indicated, taking in account the systemics effects they could produce. Prophylaxis therapy vary from doctor to doctor practice: anyway the drug most widely used are the beta-blockers, pizotifene, methisergide, calcium channel blockers and, recently,

valproate. The main driver in choosing the therapy must be the patients, because within the same patient the attack experience and the problems that migraine give to the daily living activities are differents. So the main therapy objective should be to choose the appropriate drug for the appropriate patient for the appropriate attack.

Headache:
from classification to clinic

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MIGRAINE WITHOUT AURA
IHS classification

A. At last 5 attacks fulfilling B-D

B. Headache untreated attacks lasting 4-72 hours

C. Headache has at least 2 of the following CHARACTERISTICS:

1. unilateral location
2. pulsating quality
3. moderate/severe intensity
4. aggravation by physical activity

D. During headache at least 1 of the following:

1. nausea and/or vomiting
2. photo- and phonofobia
3. moderate/severe intensity
4. aggravation by physical activity

E. Headache is not associated with other neurological condictions

MIGRAINE WITH AURA
IHS classification

A. At last 2 attacks fulfilling B

B. At least 3 of the following 4 CHARACTERISTICS:

1. one or more revesible aura symptoms
2. one aura symptoms develops gradually in more than 4 min.
   2 or more symptoms occur in succession
3. no aura symptoms last more than 60 min.

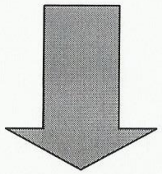
4 headache follows aura with free interval of less than 60 min.

C. At least 1 of the following:

1. no other neurological disorders
2. appropriate investigations exclude neurological disorders
3. neurological disorder is present but no relations with migraine

MIGRAINE ATTACK: prodromic phase

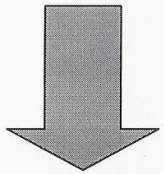
Most patients feel that the attack is approaching (mood disturbances, thirst, "feeling strange")



Serotonin release and hypotalamic involvement

MIGRAINE ATTACK: aura phase

The aura phase is associated with a decreasing in cerebral blood flow spreading from occipital to frontal area with a speed of 2-3mm/min.



This phase is followed by a vasodilatation that is the starting point for the pain symptom

MIGRAINE ATTACK: the pain

- The fibers innervating cerebral vessels arise from trigeminal ganglion and contain P substance and CGRP that are released when the ganglion is stimulated

Pain pathophysiolgy

:

- vascular hypotesis (Wolff)
- sterile inflammation hypothesis (Moskowitz)
- trigeminal trigger hypothesis (substance P release)

MIGRAINE ATTACK: pain pathway

Le vie di trasmissione del dolore

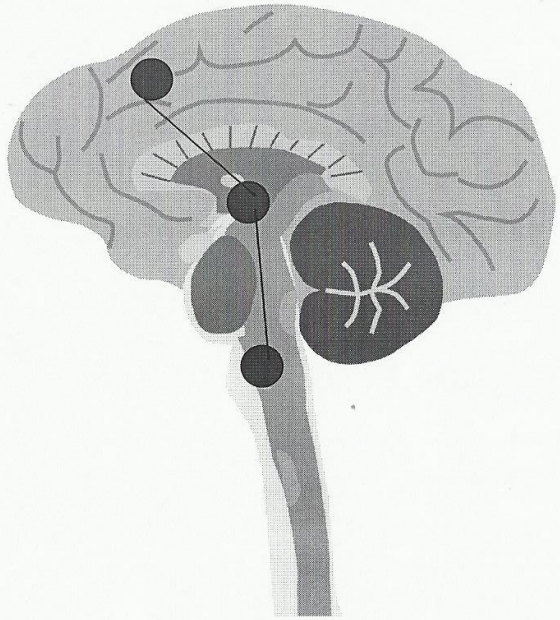
Brain cortex

↑

Thalamus (nucleus medialis)

↑

Trigeminal ganglion

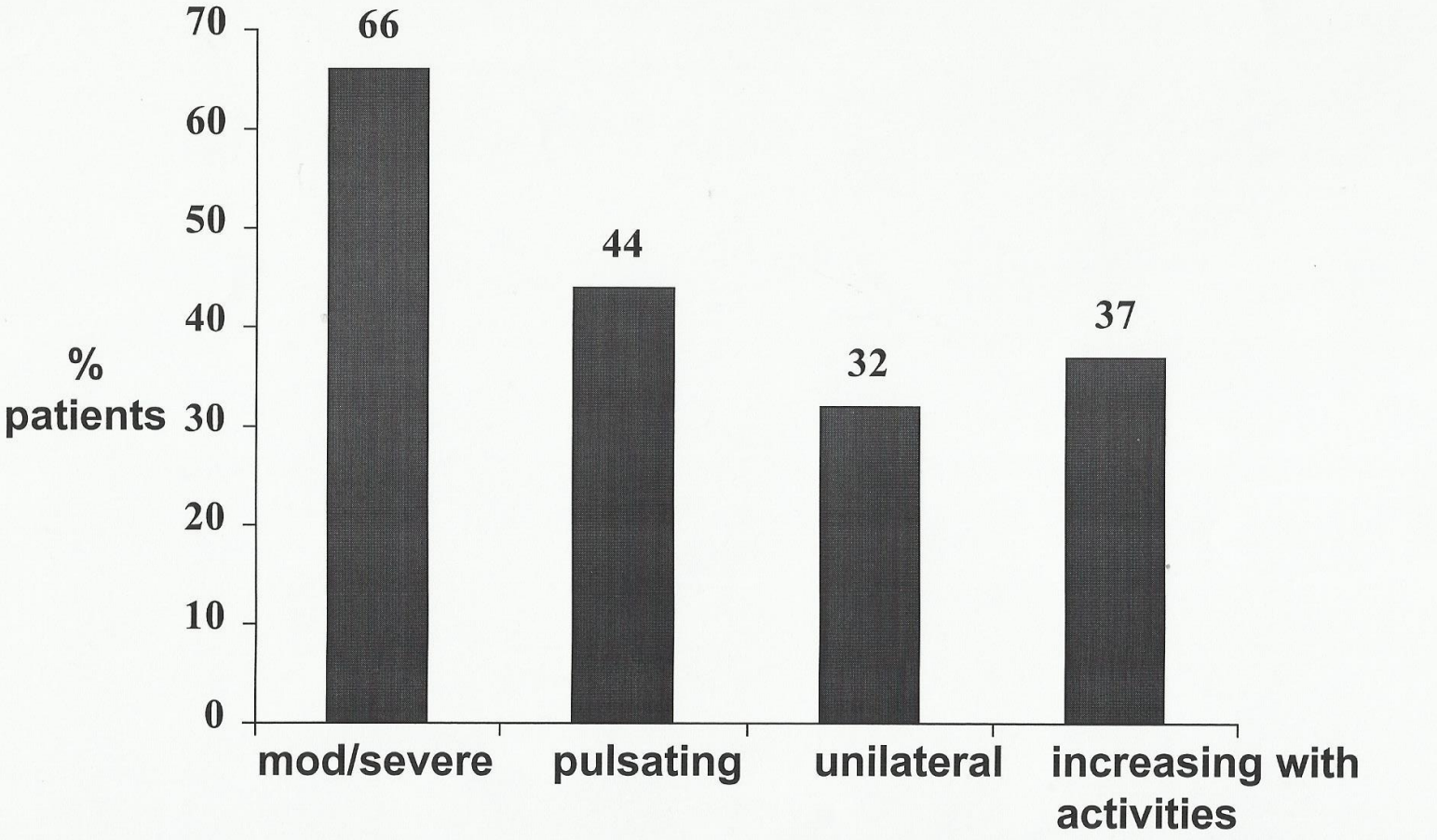


MIGRAINE ATTACK: resolution phase

- Most patients feel tired, irritable, unable to concentrate and mood disturbances

- Other patients feel unusually better, euphoric

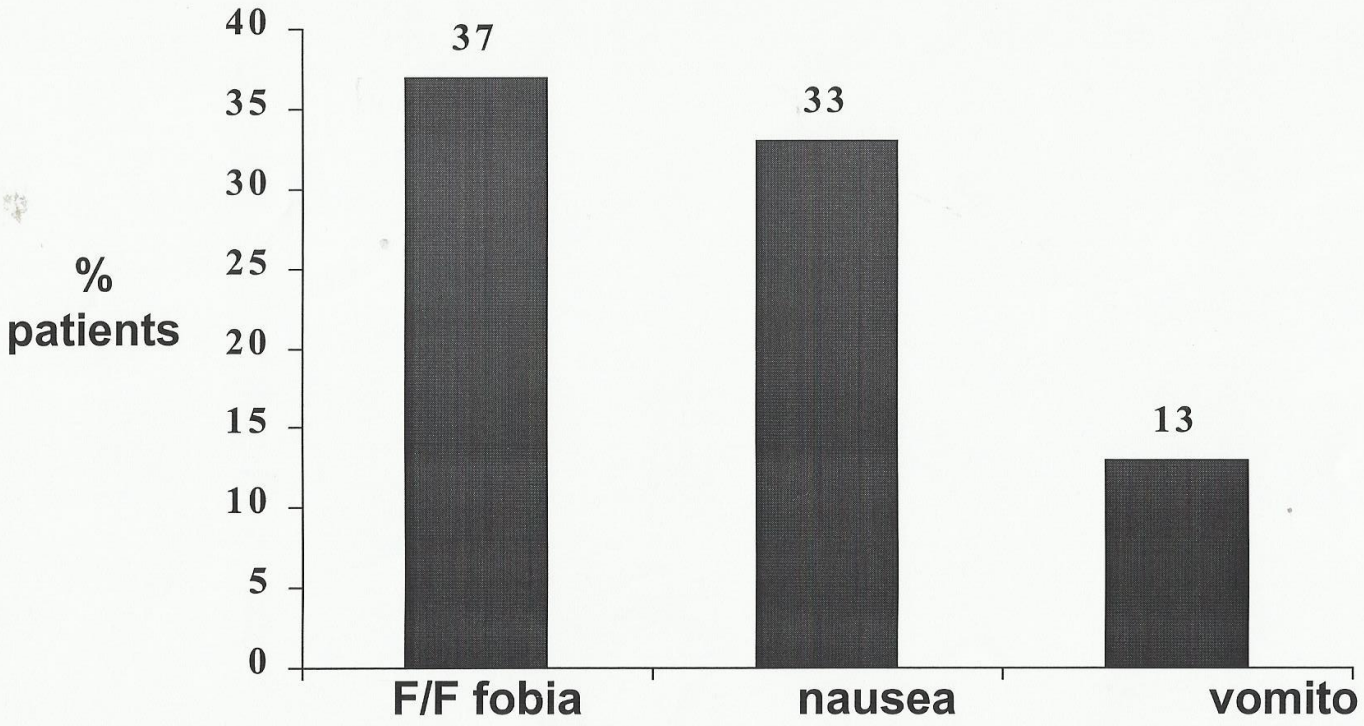
MIGRAINE CHARACTERISTICS IN ITALIAN POPULATION



N = 8.293 migraine patients

Italian GPs Survey (1997 in press)

MIGRAINE CHARACTERISTICS IN ITALIAN POPULATION
Presence of associated symptoms



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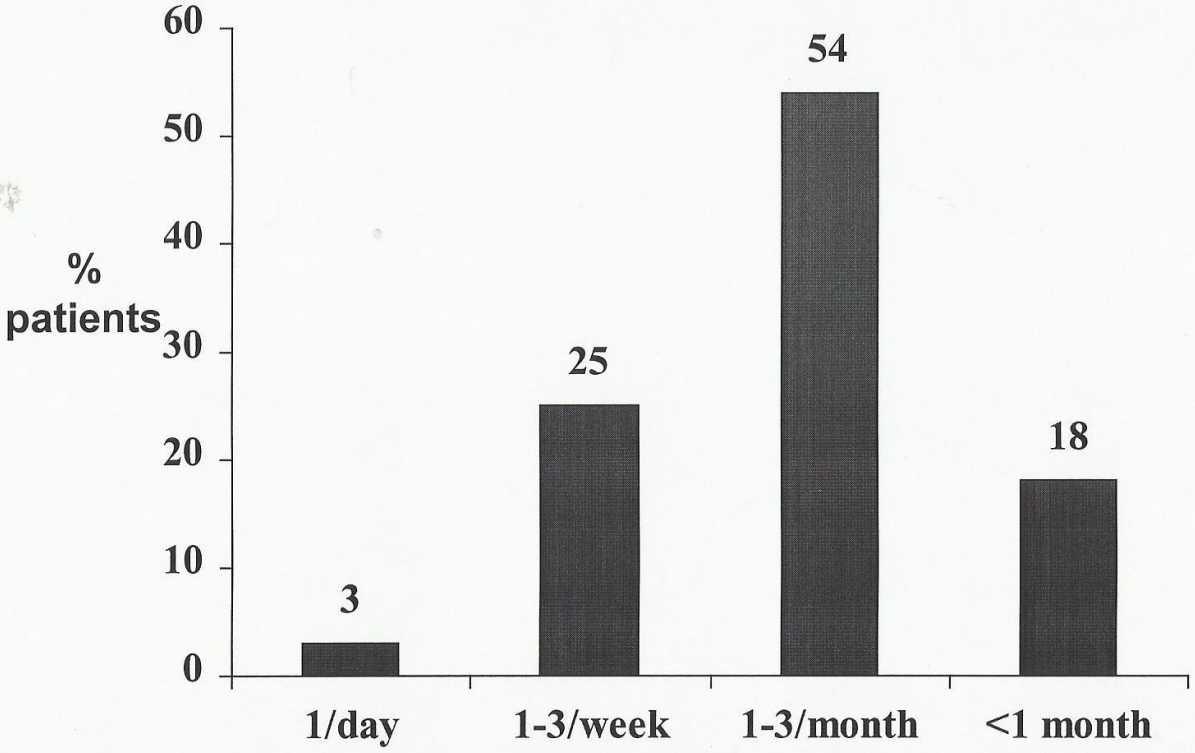
MIGRAINE CHARACTERISTICS IN ITALIAN POPULATION
frequence of attacks



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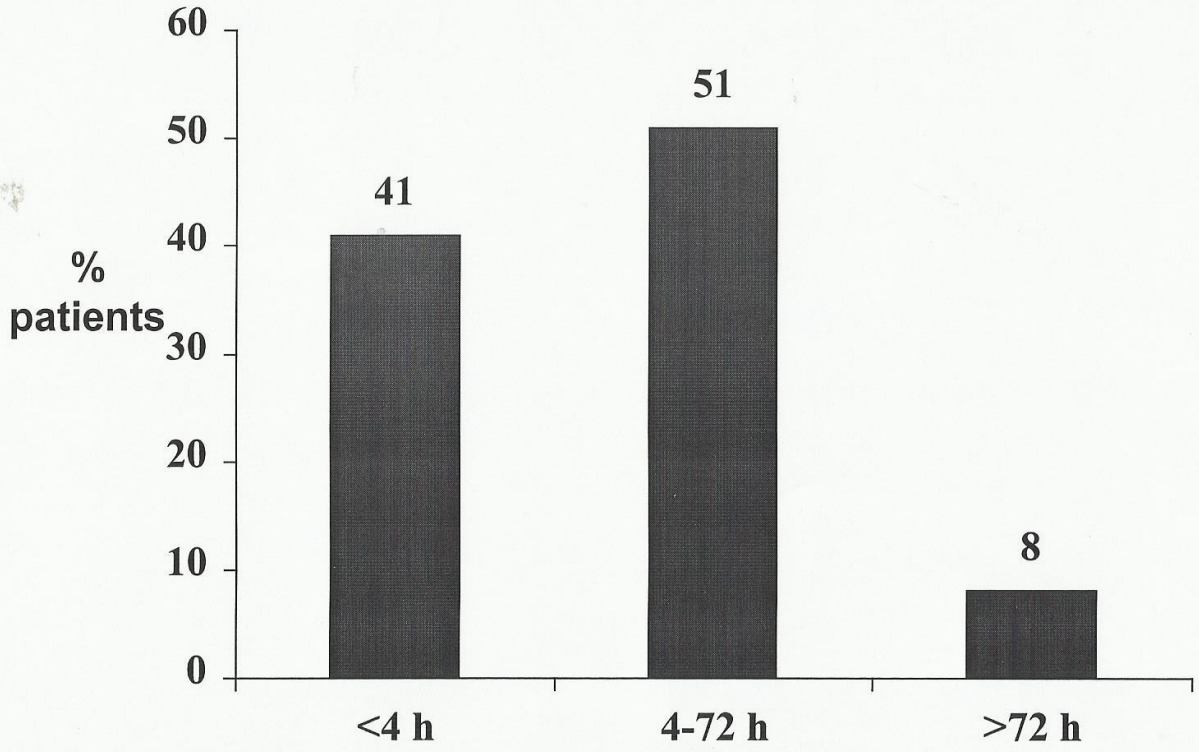
MIGRAINE CHARACTERISTICS IN ITALIAN POPULATION
attacks duration



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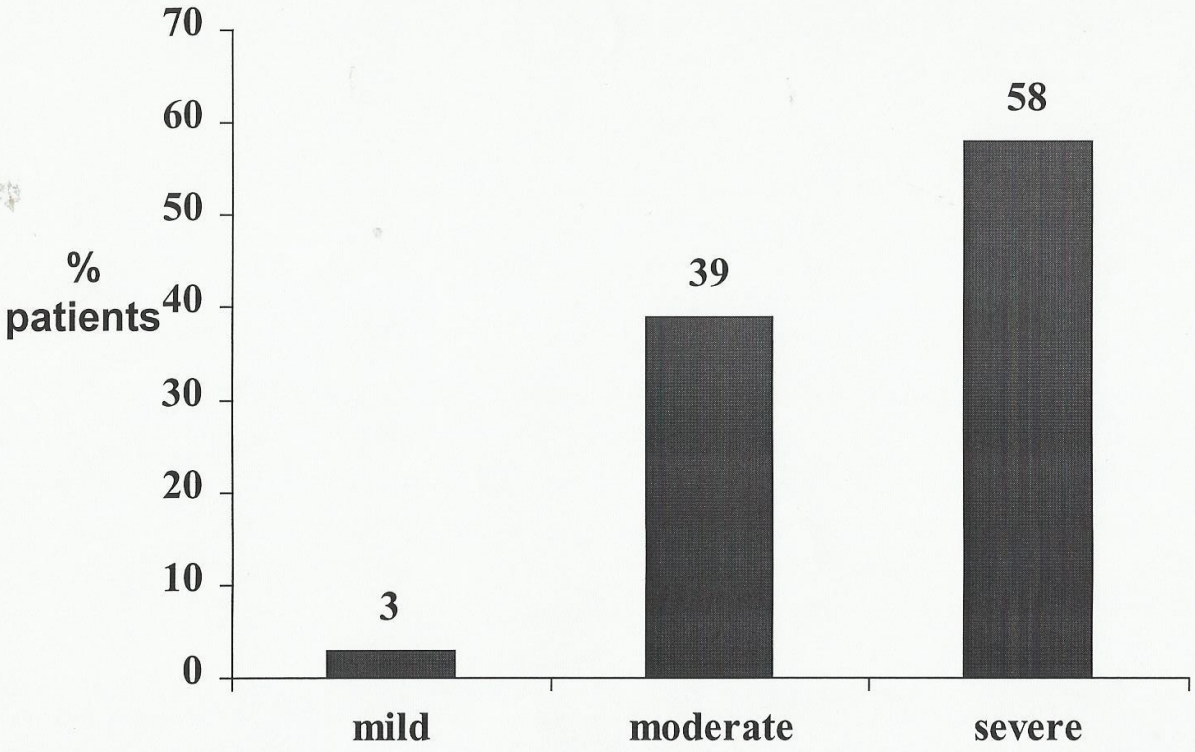
MIGRAINE CHARACTERISTICS IN ITALIAN POPULATION
pain severity



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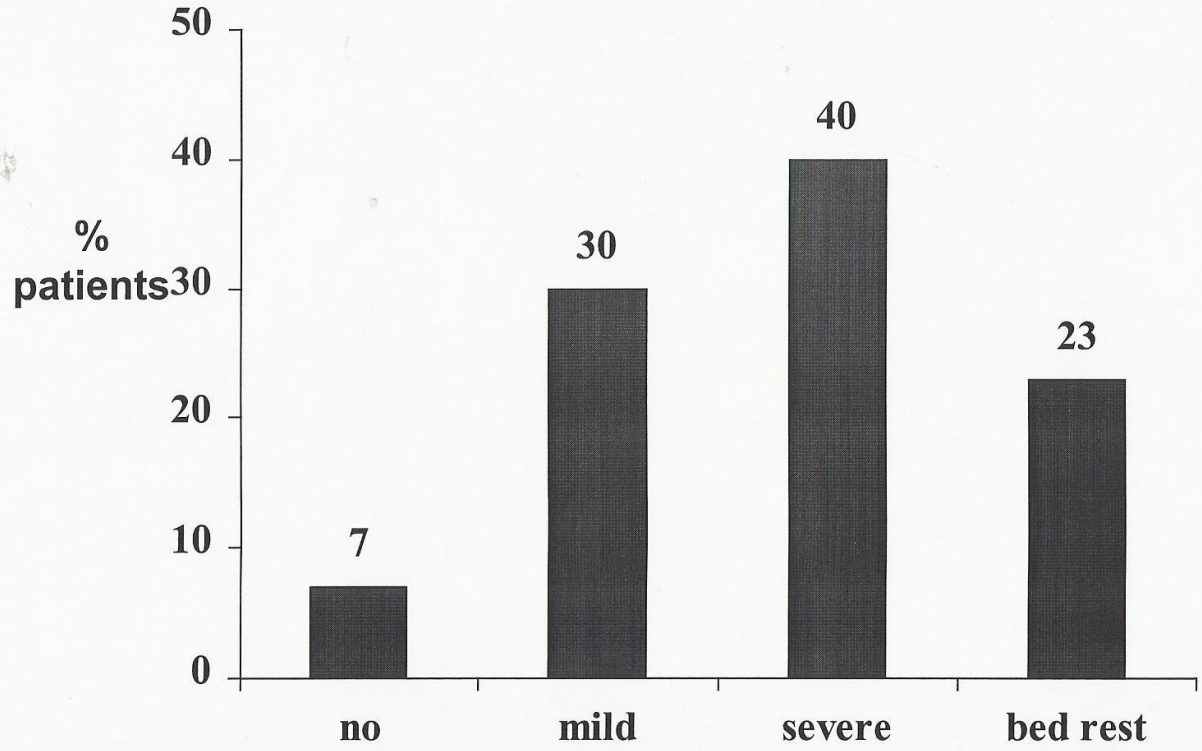
MIGRAINE CHARACTERISTICS IN ITALIAN POPULATION
interference with daily activities



N = 8.293 migraine patients

Italian GPs Survey (1997 in press)

MIGRAINE ACUTE THERAPY

Drug	efficacy	safety	controindications/AEs
Aspirin/paracet.	+	+	kidney/liver/GI tract
NSAID	+	+	GI ulcers/kidney/abuse
Analgesics	+	+	kidney/liver/GI tract
Butalbital/caffeine	+ +	+ +	drug abuse
DHE	+ + +	+ +	vascular effects
Ergotamine	+ +	+	periferal effects/abuse
Sumatriptan	+ + + +	+	coronaropaty
Zolmitriptan	+ + +	+	coronaropaty

MIGRAINE ACUTE THERAPY

Migraine CHARACTERISTICS	First line drugs	Second line drugs
Mild or moderate attacks	Analgesics. NSAID/caffeine Sumatriptan supp	Sumatr. 50 mg os DHE
Moderate attacks - no nausea -	Sumatr.50mg os Sumatriptan supp. DHE	Sumatr.100mg os Analgesics Butalbital. add-on therapy(?)
Moderate attacks with nausea/vomiting	Sumatr.supp. Sumatr. nas. spray. DHE	Analgesics + antiemetics

MIGRAINE ACUTE THERAPY

Migraine CHARACTERISTICSs	First line drugs	Second line drugs
Moderate to severe - no nausea -	Sumatr. 50mg os Sumatr. 100mg os Zolmitr. 2.5mg os	Sumatr. supp Sumatr.nasal spray DHE/ergotam.
Moderate to severe with nausea/vomiting	Sumatr. nasal spray Sumatript. supp Ergotam. supp.	DHE nasal spray Sumatr. 6mg s.c. Ergotam.
Severe attacks with/without nausea	Sumatr.6mg s.c. Sumatr. nas. spray. DHE parenteral	Sumatr. 100mg Ergotamine

MIGRAINE PROPHYLAXIS

Drug	efficacy	safety	problems
Beta blockers	+ + + +	+ +	Asthma, depression
Pizotifene	+ + +	+ +	Obesity
Methisergide	+ + + +	+ + + +	Angina
Flunarizine	+ + + +	+ +	Parkinson's
Verapamil	+ +	+	Hypotension, constip.
SSRI	+ +	+	Mania, mood disorders
Valproate	+ + + +	+ +	Liver/blood disorders
Naproxen	+ +	+ +	GI ulcer/ gastritis