SPS
SOUTHERN PAIN SOCIETY

September 2023

Dear Attendee:

We are delighted to have your participation in the 37nd Annual Southern Pain Society Meeting. We hope you find the speakers enlightening and informative.

As you may know, SPS represents the 18 southern states including Puerto Rico. Our membership base is strong and we have many active and engaged professionals who serve on a number of committees.

If you have not already done so, we hope you will consider becoming a member of the Society and participate in the growth and development of the organization as well as the discipline of pain management. Membership applications are included in your packet and you will get 2 years membership for the price of one if you sign up during the meeting. We welcome your input, suggestions and contributions.

Best wishes for a great meeting!

Thomas Davis, MD
President

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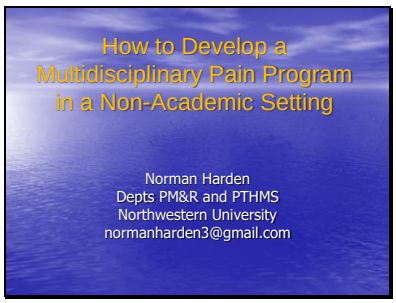

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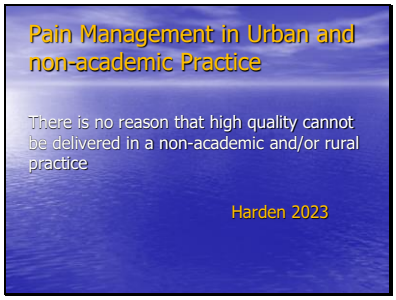

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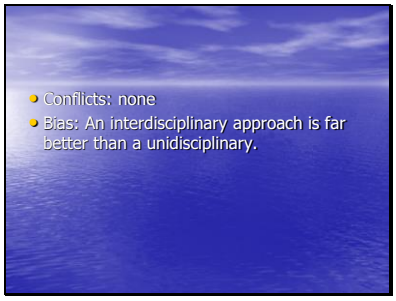

Slide 4

Chronic Pain is a Bio-Psycho-Social Disease

Bonica, Brena, Fordyce, Flor et al various.

Slide 5

Continuum of Team Models

Parallel Practice | Coordinated | Interdisciplinary

Continuum of Team Models

Collaborative | Multidisciplinary | Transdisciplinary

Modified from Boon H, et al. *BMC Health Services Research.* 2004;4:15.

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Multidisciplinary Team Model

- Doctor Centered (MD/DO/PhD)
- Patient care is planned and managed by a team leader
- Leadership is hierarchical
- One or two individuals direct the services of a range of team members
- Team members have individual goals
- Make independent decisions
- CME is the essential ingredient

Boon H, et al. *BMC Health Services Research.* 2004;4:15.
Crawford G, Price S. *Medical Journal of Aust.* 2003;179:S32-S34.

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Interdisciplinary Team Model

- Patient Centered
- Team members work together toward a common goal
- Make collective therapeutic decisions
- Communicate and consult with other team members, facilitated by planned face-to-face meetings
- Teams possess a combination of skills that no single individual demonstrates alone
- Team is able to achieve more than the sum of the individuals involved

Boon H, et al. *BMC Health Services Research*. 2004;4:15., Cummings I. The interdisciplinary team. In: Doyle D, Hanks GW, MacDonald N, editors. Oxford textbook of palliative medicine. Oxford:Oxford University Press, 1998., Parker GM. Cross-functional teams, working with allies, enemies and other strangers. San Francisco:Jossey-Bass Publishers, 1994:7:31-40.

Slide 8

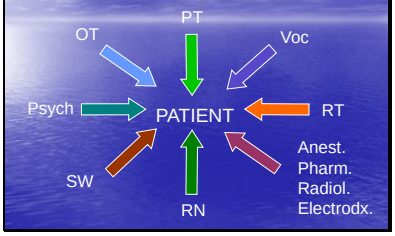
THE TRUTH AS WE KNOW IT……..

Efficacy of multidisciplinary pain treatment centers:
a meta-analytic review *

1992!

Slide 9

Multidisciplinary Team Approach



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The Role of the Physician

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Doctors Role: Diagnose first then Treat

- Ideal is to match the mechanism of disease with the mechanism of action of the intervention.
- Problem: We know little about the mechanisms of our interventions, and less about the pathophysiology of pain.

Harden et al *Pain Medicine* 2022

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Must use available diagnositc Criteria

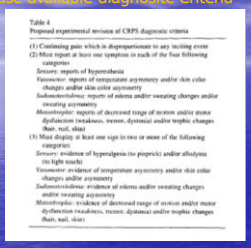

Table 4
Proposed experimental revision of CRPS diagnostic criteria

(1) Continuing pain which is disproportionate to any inciting event
(2) Must report at least one symptom in each of the four following categories:
Sensory: reports of hyperesthesia
Vasomotor: reports of temperature asymmetry and/or skin color changes and/or skin color asymmetry
Sudomotor/edema: reports of edema and/or sweating changes and/or sweating asymmetry
Motor/trophic: reports of decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and/or trophic changes (hair, nail, skin)
(3) Must display at least one sign in two or more of the following categories:
Sensory: evidence of hyperalgesia (to pinprick) and/or allodynia (to light touch)
Vasomotor: evidence of temperature asymmetry and/or skin color changes and/or asymmetry
Sudomotor/edema: evidence of edema and/or sweating changes and/or sweating asymmetry
Motor/trophic: evidence of decreased range of motion and/or motor dysfunction (weakness, tremor, dystonia) and/or trophic changes (hair, nail, skin)

Harden et al *Pain* 1999

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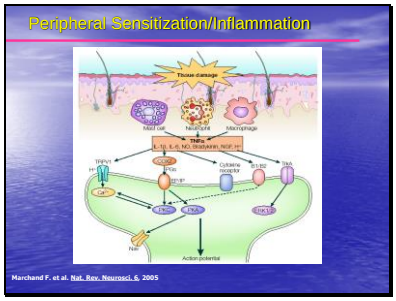

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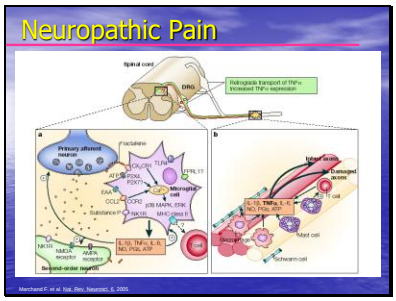

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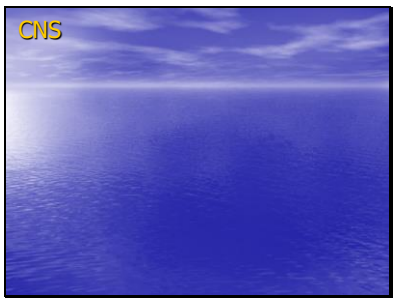

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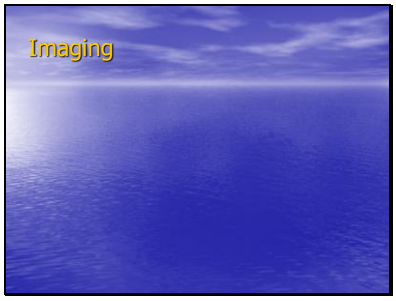

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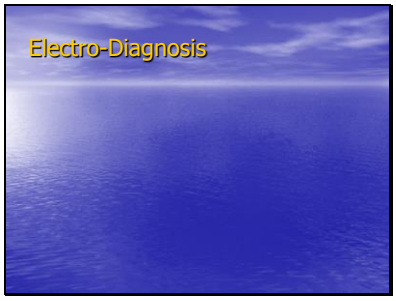

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Myopain:

Fibromyalgia (Whole body)
Myofascial Pain Syndrome (regional)

- Weakness
- Dystonia
- secondary~ contracture
- Kenisiophobia

Trigger Points, Tender Points

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Psychopathology

Fear
Anxiety
Anger
Suffering
Depression
Failure to Cope

Raja SN et al. *Anesthesiology*. 2002;96:1254-1260.

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Pain and Depression in Primary Care

- 1/3 to 1/2 of patients with CP have co-morbid depression
- 3/4 of depressed people present with physical sxs, including pain
- Pain often best indicator of dep in elderly
- Depression increases impairment from CP
- Pain+depression=increased health care use/cost

Slide 22

Anxiety

- Pain Anxiety
  - Associated with depressed mood, high levels of pain, and low lifting and carrying capacity during functional assessment in patients with chronic pain[1]
  - Exposing patients to physical maneuvers that they expect to elicit increased pain reduces pain anxiety and increases physical activity[2]

[1]Burns JW et al. Pain 2000; 84: 247-252
[2]Vlaeyen JW et al. Clin J Pain 2002; 18: 251-261

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Axis II

prevalence of personality disorders in chronic pain populations is 31-64%

Weisberg, 2000

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Operant Issues
(esp. Social Work, Voc Rehab)

Work Comp	54%
3rd Party Lawsuit	17%
Litigation Total	71%
IME'S	23%

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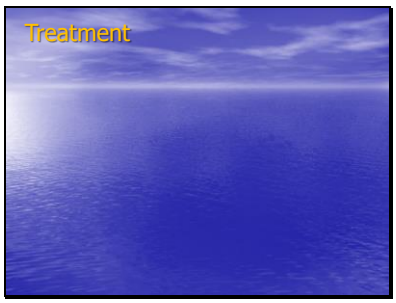

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Pharmacotherapy (empirical, consensus)

Reason for inability to begin or progress	Action
Mild to moderate pain	Simple analgesics and/or blocks
Excruciating, intractable pain†	Opioids and/or blocks or later, more experimental interventions
Inflammation/swelling and edema	Steroids, systemic or targeted (acutely) or NSAIDs (chronically); immunomodulators
Depression, anxiety, insomnia	Sedative, analgesic antidepressant/anxiolytics and/or psychotherapy
Significant allodynia/hyperalgesia	Anticonvulsants and/or other sodium channel blockers and/or NMDA-receptor antagonists
Significant osteopenia, immobility and trophic changes	Calcitonin or bisphosphonates
Profound vasomotor disturbance	Calcium channel blockers, sympatholyticsand/or blocks

Harden et al 2022

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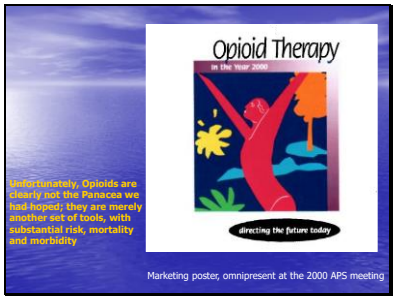
"the Opioid Crisis"

Slide 30



Unfortunately, Opioids are clearly not the Panacea we had hoped; they are merely another set of tools, with substantial risk, mortality and morbidity

Marketing poster, omnipresent at the 2000 APS meeting

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Interventional Pain Therapy

- Minimally Invasive Therapies
  - Sympathetic / Somatic nerve blocks
  - IV Regional nerve blocks
- More Invasive Therapies
  - Epidural / Plexus Catheter Blocks
  - Neurostimulation
  - Intrathecal Drug Infusion
- Surgical Therapies
  - Sympathectomy
  - Motor Cortex Stimulation

Burton A. Interventional therapies. *Complex Regional Pain Syndrome: Treatment Guidelines.* RSDSA press. 2006:51-62 Velasco F. Pain, 2009, Volume 147, Issue 1, Pages 91-98

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Never underestimate the psychotherapeutic value of 'What the Doctor says'

Slide 33

Physical Therapy (DPT, RPT)

- De-emphasizing high tech, passive modalities
- Emphasizing low tech, self management and active modalities
- Reactivation "Reanimation"
- Stretch/strengthen
- Desensistization
- Mirror Therapy

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Adage/Legend/Lore/Anecdote/ Empirical 'Truth'

Must counter 'kinesiophobia'
Must reanimate the affected part
Must normalize use

*first thought to be stimulation or large fibers to 'shut' the pain gate (precedence over small fiber input), normalize and balance input to CNS

*but evidence from mirror therapy suggests there is more to it than just afferent normalization

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Reactivation, Aerobic conditioning

Slide 36

Functional Movement

- As often as possible, use function based exercises
  - For UE involvement: instead of working on supination/pronation, have the patient practice turning door knobs/opening doors
  - For LE involvement: exercise should promote gait and equal weight bearing (i.e. offset static standing, progressive step ups, weight shifting during leisure activity)

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Occupational Therapy (OTR)

- Postural training
- Work/fun station analysis, correction
- Orthotics
- Work hardening

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Functional Positioning

- Proper posture
- Decrease compensation
- Proper body mechanics
- Ergonomic principles

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Desensitization

- Initiate at evaluation appointment, if possible
- Explain clearly how to perform and what to expect
  - Make sure patient understands that desensitizing an area to a pressure/texture/temperature does not mean that it will begin to feel "good"
- Be creative with desensitization media
  - Mrs. S. very fearful/apprehensive of treatment, poor prior experience with OT→ started desensitization by petting her kitten
- Establish daily regimen for desensitization multiple times/day
  - Consistent demand is key

Slide 40

Edema Management

- Passive Edema Management
  - Use of Coban™ or Jobst®/Isotoner® garments for severe edema
  - Consider functional splinting
- Active Edema Management
  - Control of edema through activity and positioning

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Mirror therapy for CRPS

- Daily exercise of cardinal movements of the affected limb while viewing an image of their unaffected limb in a mirror for 30 minutes daily has been shown to improve pain, motor function, and edema[1]
- Sensory discrimination training while looking toward the affected body part but seeing the opposite part of the body in the mirror also decreased pain and increased tactile acuity[2]

1. Cacchio C et al.; *New England Journal of Medicine 2009; 361;6. 634-636.*
2. Moseley GL et al.; Pain, 2009; 144; 314-19

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Flare Up Plan

- Decrease but DO NOT STOP activity
- Utilize all pain management strategies
  - Pacing of activities
  - Thermal modalities
  - Relaxation or biofeedback exercises
  - Medications
- Increase emphasis on scrubbing during flare and for several days after

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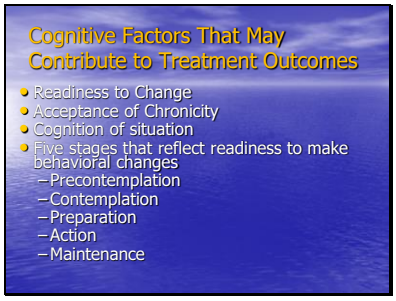

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Biofeedback

- EMG biofeedback
- Autogenic training
- Progressive muscle relaxation
- Meditation
- Sleep hygiene

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Vocational Rehabilitation

- Job description
- Site analysis
- Testing
- Return to work assessment
- Placement

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Complementary-Alternative Medicine

- 629 million visits to CAM practitioners 1997
  - Up from 427 million in 1990
  - Only 243 million visits to PCP's in 1997
- 42.1% of population used at least one of 16 CAM therapies 1997
  - 33.8% in 1990

Eisenberg, JAMA 1998.

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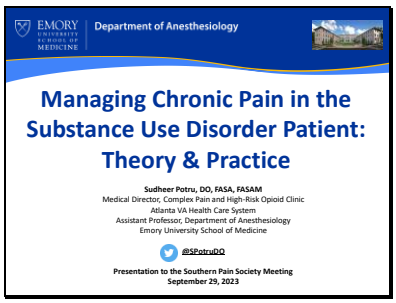

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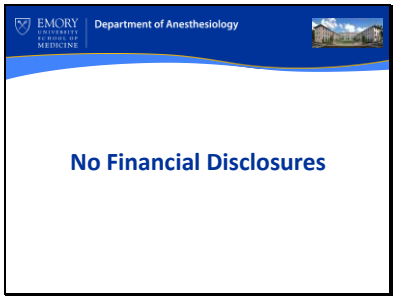

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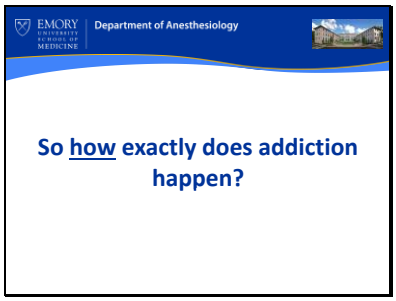

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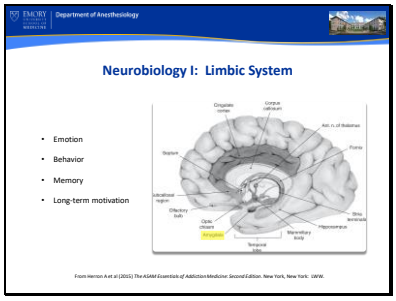

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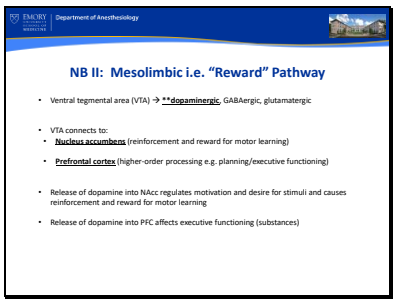

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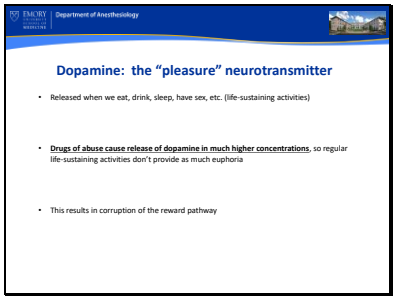

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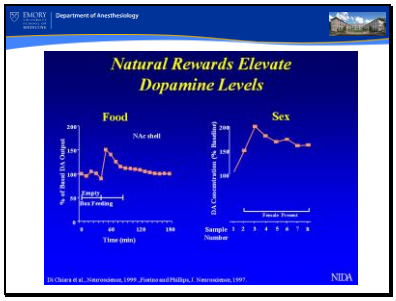

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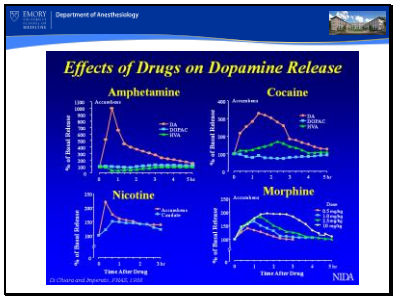

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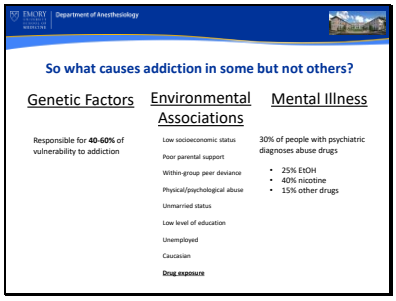

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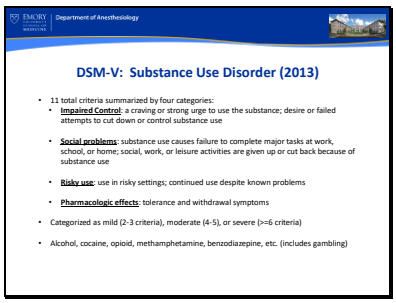

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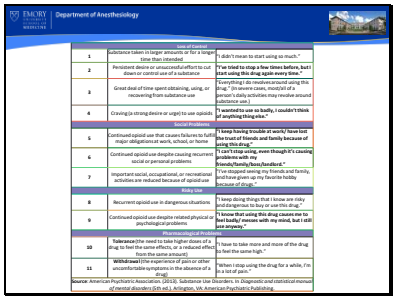

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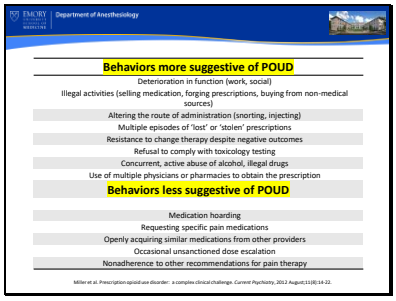

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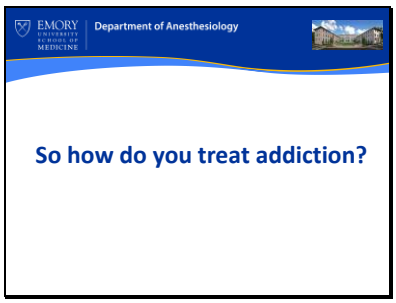

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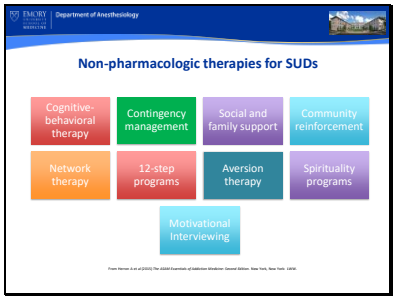

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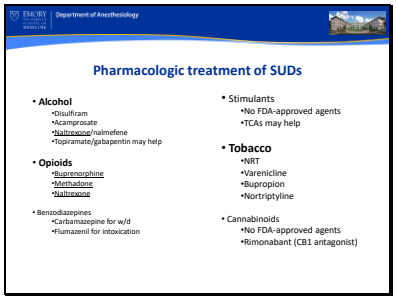

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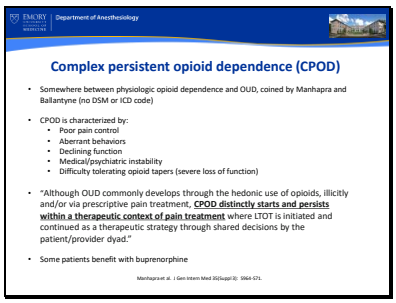

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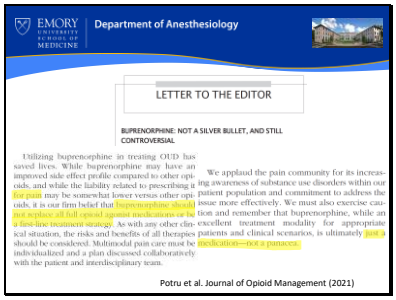

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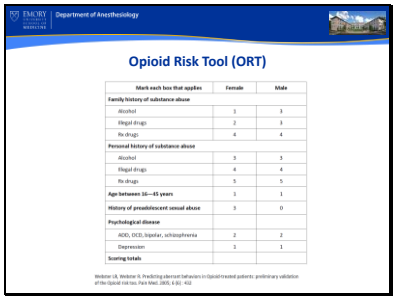

Mark each box that applies	Female	Male
Family history of substance abuse		
Alcohol	1	3
Illegal drugs	2	3
Rx drugs	4	4
Personal history of substance abuse		
Alcohol	3	3
Illegal drugs	4	4
Rx drugs	5	5
Age between 16—45 years	1	1
History of preadolescent sexual abuse	3	0
Psychological disease		
ADD, OCD, bipolar, schizophrenia	2	2
Depression	1	1
Scoring totals		

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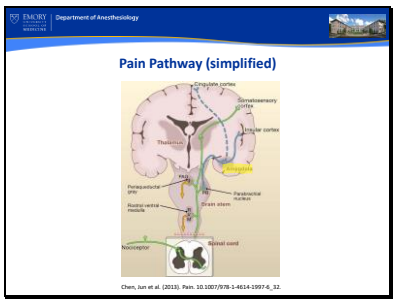

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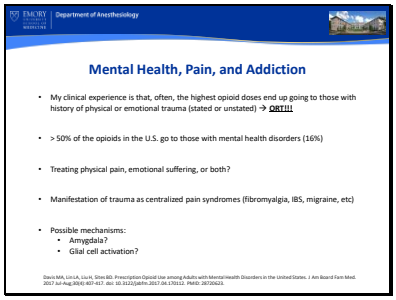

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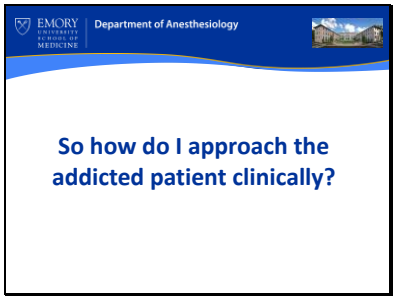

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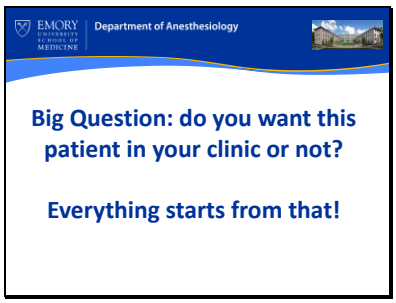

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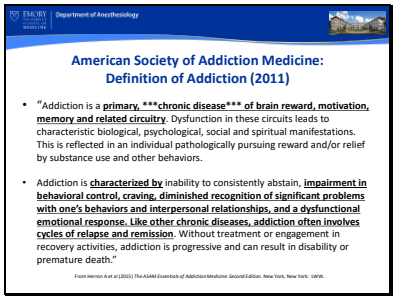

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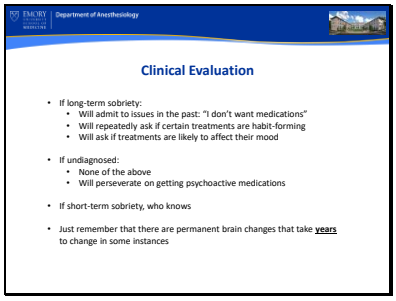

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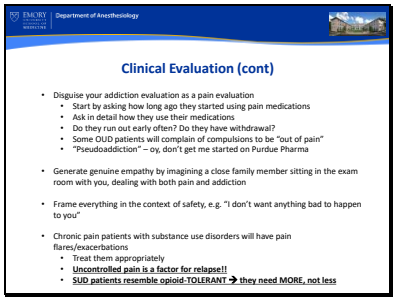

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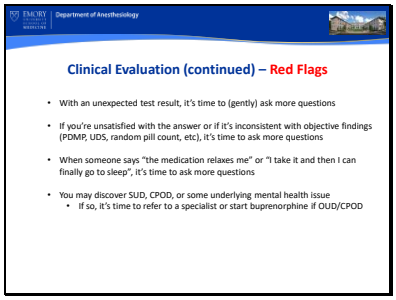

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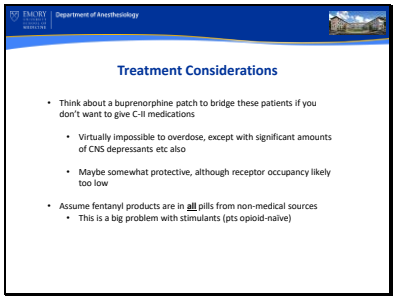

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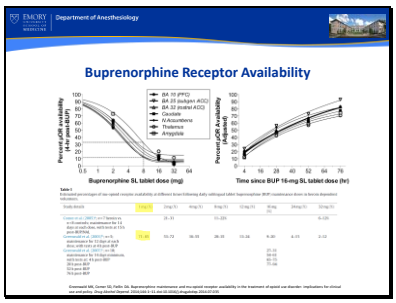

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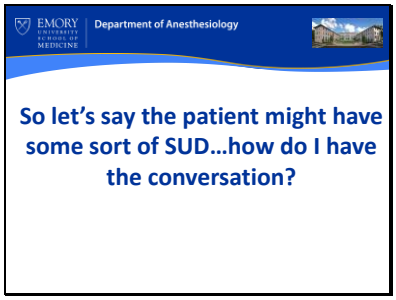

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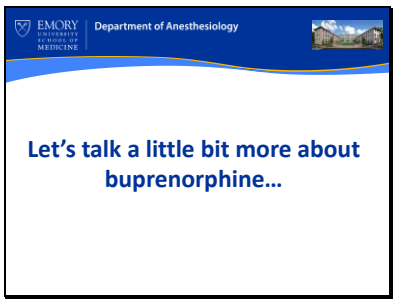

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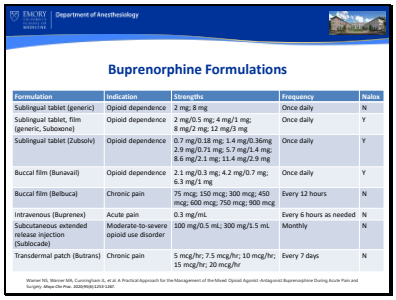

Formulation	Indication	Strengths	Frequency	Naloxone
Sublingual tablet (generic)	Opioid dependence	2 mg; 8 mg	Once daily	N
Sublingual tablet, film (generic, Suboxone)	Opioid dependence	2 mg/0.5 mg; 4 mg/1 mg; 8 mg/2 mg; 12 mg/3 mg	Once daily	Y
Sublingual tablet (Zubsolv)	Opioid dependence	0.7 mg/0.18 mg; 1.4 mg/0.36mg 2.9 mg/0.71 mg; 5.7 mg/1.4 mg; 8.6 mg/2.1 mg; 11.4 mg/2.9 mg	Once daily	Y
Buccal film (Bunavail)	Opioid dependence	2.1 mg/0.3 mg; 4.2 mg/0.7 mg; 6.3 mg/1 mg	Once daily	Y
Buccal film (Belbuca)	Chronic pain	75 mcg; 150 mcg; 300 mcg; 450 mcg; 600 mcg; 750 mcg; 900 mcg	Every 12 hours	N
Intravenous (Buprenex)	Acute pain	0.3 mg/mL	Every 6 hours as needed	N
Subcutaneous extended release injection (Sublocade)	Moderate-to-severe opioid use disorder	100 mg/0.5 mL; 300 mg/1.5 mL	Monthly	N
Transdermal patch (Butrans)	Chronic pain	5 mcg/hr; 7.5 mcg/hr; 10 mcg/hr; 15 mcg/hr; 20 mcg/hr	Every 7 days	N

Warner NS, Warner MA, Cunningham JL, et al. A Practical Approach for the Management of the Mixed Opioid Agonist-Antagonist Buprenorphine During Acute Pain and Surgery. Mayo Clin Proc. 2020;95(6):1293-1300.

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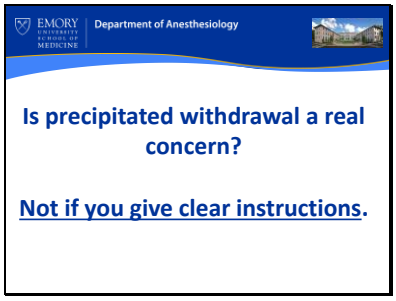

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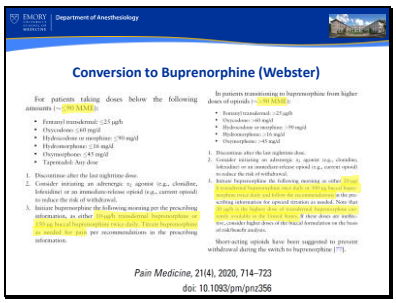

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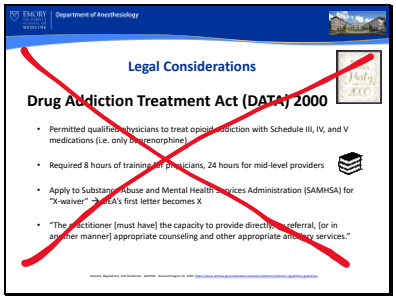

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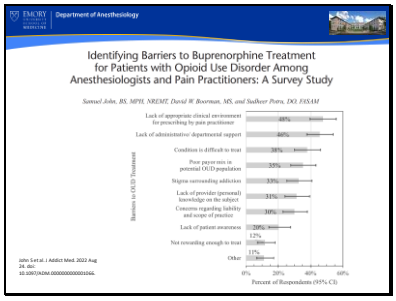

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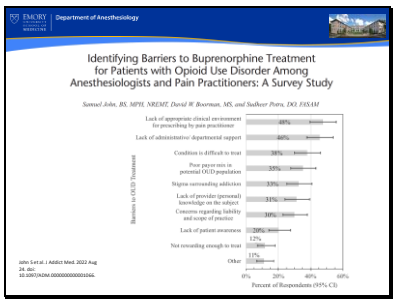

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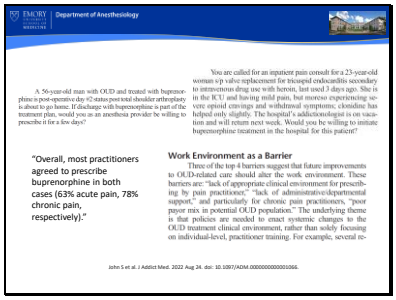

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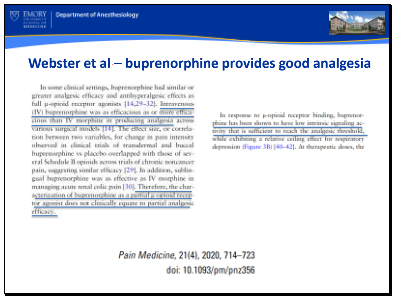

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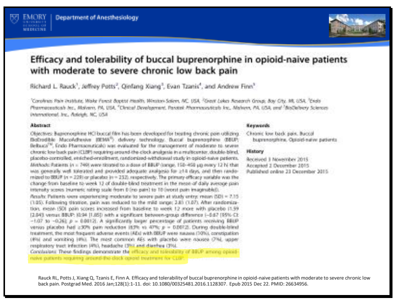

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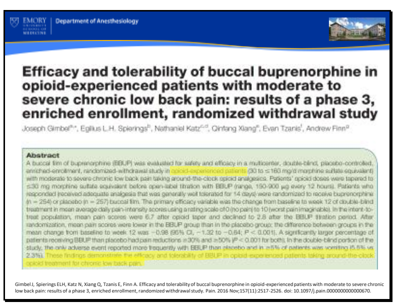

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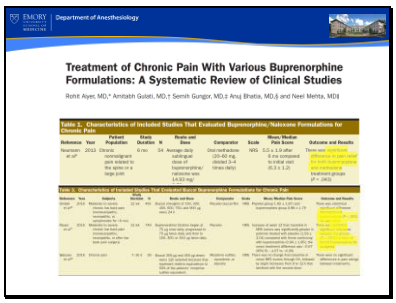

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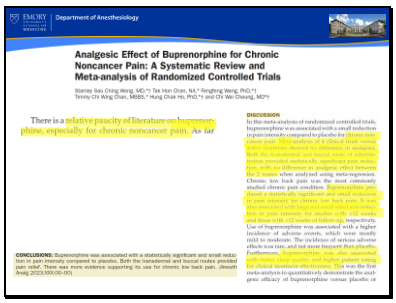

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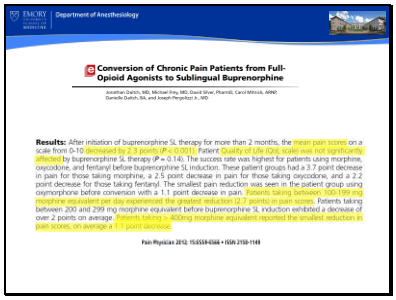

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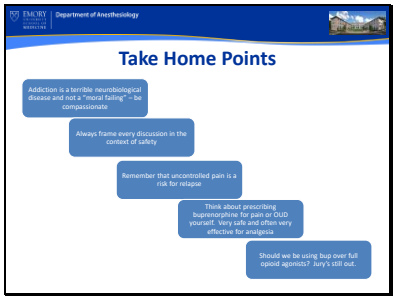

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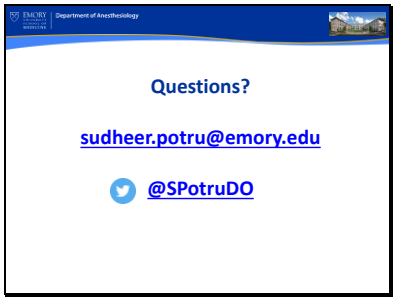
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MIGRAINE MIMICS
s that headache
really a migraine?

CAROL REDILLAS, M.D.
CRESCENT CITY HEADACHE AND NEUROLOGY
NEW ORLEANS, LA

1

Migraines: How to recognize them

- Recurrent headache disorder manifesting in attacks lasting 4-72 hours. Typical characteristics of the headache are unilateral location, pulsating quality, moderate or severe intensity, aggravation by routine physical activity and association with nausea and/or photophobia and phonophobia.

2

Migraine Mimics: What are they?

- Headaches that have common features with migraine
- Can lead to erroneous, false positive diagnosis of migraines
- Can lead to overdiagnosis and missed opportunities to treat the disorder that is truly present

3


Migraine Mimics: When to consider
At the time of the initial consultation
Those with a diagnosis of migraine but has not responded adequately to treatment
Those whose headache features change with time

4


Migraine Mimics: when to consider
Note: Sometimes, there is more than a single diagnosis present (i.e. migraine PLUS another condition)!

5


Evaluating a patient with headaches
Identify and exclude secondary headache disorders
History and examination to search for "red flags"

6

Headache "red flags"

- Rapid onset of symptoms
- Thunderclap headaches
- Presence of neurologic symptoms and signs
- Prominent neck pain with and without fever
- Age of onset > 50 y/o
- Worsening with position or Valsalva's

7

Primary headache disorders

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8

Trigeminal Autonomic Cephalgias

Cluster headaches
Paroxysmal hemicranias
Hemicrania Continua
Short lasting unilateral neuralgiform headaches w/ or w/o conjunctival injection (SUNCT/SUNA)

9

Trigeminal Autonomic Cephalgias

- Distinguished by attack frequency, attack duration and patterns of response to treatment
- Can be confused with migraines due to unilateral pain, overlap of associated symptoms and treatment response

10

TACs– Cluster headaches

- Characterized by severe unilateral pain associated with ipsilateral autonomic features and restlessness
- Attacks last 15 to 180 minutes
- Multiple attacks in a 24 hour period

11

TACs- Cluster Headaches

- Differentiating features from migraines
  - Shorter attack duration
  - Circannual and/or circadian pattern
  - Restlessness during an attack

12

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TACs– Hemicrania Continua

- As the name suggests, it is characterized by continuous headaches with exacerbations of pain

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TACs-- Hemicrania Continua

- Can be confused with migraines especially if the history focuses on the painful exacerbations
- Differentiating features from migraines
  - Absence of pain free intervals
  - Absolute response to indomethacin

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TACs– Paroxysmal Hemicrania

- Similar to cluster headache, it is a severe, episodic, unilateral headache that affects the periorbital and retroorbital regions.
- In contrast to cluster headache, which occurs 10 times more commonly in men, paroxysmal hemicrania occurs primarily in women
- Shorter duration and higher frequency of headaches compared to cluster
- Absolute response to indomethacin

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TACs– Paroxysmal Hemicrania

- Differentiating features from migraines
  - Shorter attack duration
  - Multiple attacks in a 24 hour period
  - Absolute response to indomethacin

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TACs– SUNCT/SUNA

- Characterized by moderate to severe single or multiple stabs of pain lasting from 1to 600 seconds
- Can be differentiated from migraines by the very high frequency and very short duration of attack

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Trigeminal Autonomic Cephalgias

	Cluster	Paroxysmal Hemicrania	SUNCT/SUNA	Hemicrania Continua
Sex Ratio F:M	1:3	2:1	1: 1.2	?
Quality of pain	Stabbing/sharp	Throbbing, piercing, stabbing	Burning, stabbing, cutting	Pressing, stabbing
Intensity of pain	Very severe	Very severe	Very severe	Moderate to severe
Location of pain	Orbital, temporal	Orbital, temporal	Periorbital	Nuchal to frontal
Frequency	Every 1-2 days or up to 8x a day	1-40/day	3-200/day	Continous
Duration	15-180 min	2-30 min	5-240 sec	Daily, continous

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Trigeminal Autonomic Cephalgias

	Cluster Headache	Paroxysmal Hemicrania	SUNASUNCT	Hemicrania Continua
Autonomic symptoms	Present	Present	Present	Present but mild
Trigger: ETOH	Yes	Sometimes	No	No
Trigger: cutaneous stimuli	No	No	Yes	No
Response to indomethacin	No	Yes	No	Yes

20

New daily persistent headaches

- Persistent headache clearly remembered from onset
- Present for at least 3 months
- Notoriously difficult to treat
- Can exhibit migraine features
- Differentiated from migraines by absence of pain free periods from onset

21

Hypnic headaches

- Rare, occurs exclusively during sleep
- Dubbed as the "alarm clock headache" as it usually occurs at the same time at night
- Usually starts after the age of 50 years,

22

Hypnic headaches

- Unlike migraines, it never occurs during the daytime
- Not associated with any migrainous or autonomic symptoms

23

Secondary headache disorders

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Arterial Dissection

- May be present with unilateral severe headaches with nausea and phobias
- Unlike migraines, pain is more rapid in onset and commonly associated with signs of cerebral ischemia and/or sympathetic compromise

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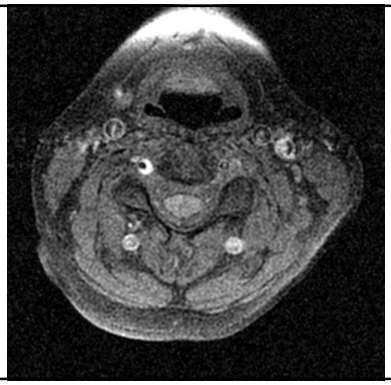

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Giant cell arteritis (GCA)

- May be associated with visual loss (amaurosis fugax) that can be confused with migraine aura
- Unlike migraine, GCA is usually associated with systemic symptoms such as fever, weight loss, jaw claudication, temporal artery induration/tenderness

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Giant cell arteritis (GCA)

- Usually affects people above 50 y.o
- Associated with elevated inflammatory markers i.e. ESR, CRP
- A headache NOT to miss! Can lead to irreversible visual loss and stroke

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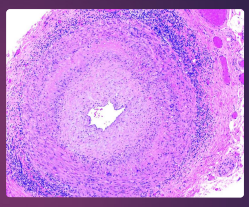

Giant cell arteritis (GCA))

29

Stroke and vasculopathies

- Stroke, intracranial hemorrhage, venous thrombosis, reversible cerebral vasoconstriction syndrome may be associated with migraine features
- More commonly associated with focal neurological deficits and decrease in awareness compared to migraines

30

Hypertension

- Can present with migraine like headaches
- Typically associated with SBP > 1892 mm Hg and DBP > 110 mm Hg

31

Acute closed angle glaucoma

- Can be differentiated from migraines by the presence of severe headache around one eye, associated with hardness and tenderness of the eye, blurred vision or visual loss, halos around objects and/or redness of the eye
- This is a medical emergency!

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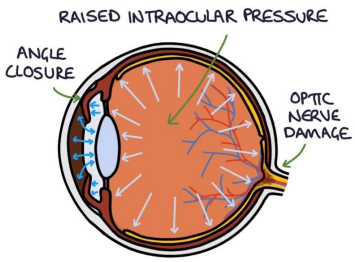

Acute closed angle glaucoma

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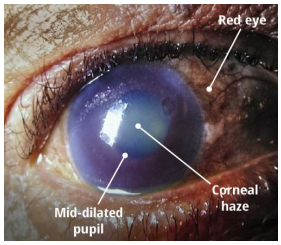

Acute angle closure glaucoma

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Thunderclap headaches

- Warrants vigorous evaluation for a secondary cause such as subarachnoid hemorrhage, intracerebral hemorrhage, pituitary apoplexy, stroke, RCVS
- Develops to peak intensity in < 1 minute of onset
- After all life threatening conditions are ruled out, consider primary thunderclap headaches as a diagnosis

35

Transient ischemic attack

- Often confused for migraine aura and vice versa
- Inappropriate diagnosis of TIA in a patient with migraine can lead to extensive work-up and unnecessary use of antiplatelets
- Usually associated with vascular risk factors (HTN, HPL, CAD, etc) and lasts < 1 hour

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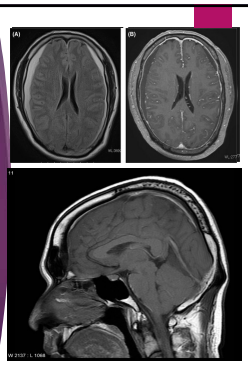
CSF pressure related headaches

- Demographics for people with either migraine or intracranial hypertension(IIH) overlap significantly and these two conditions maybe comorbid

37

CSF pressure related headaches—intracranial hypotension

- Postural headaches or end of the day headaches may indicate CSF leak
- Opening pressure 60 mm H20 or less
- Sustained improvement after blood patch
- Cranial MRI changes i.e. brain sagging pachymeningeal enhancement,



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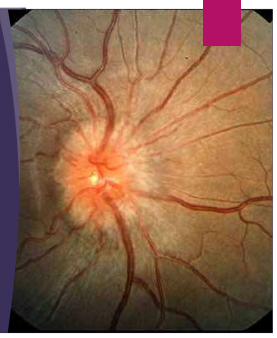
CSF pressure related headaches—intracranial hypertension

Presence of pulsatile tinnitus, visual obscurations, CN VI palsy and papilledema suggests IIH

Opening pressure > 25 cm H20



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Headaches associated with neoplasms

- Migraine, nausea and vomiting can be a presenting feature
- Commonly precipitated by bending or Valsalva's
- Remain vigilant in patients with migraine whose symptoms worsen for unclear reasons

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Headaches secondary to infections

- Meningitis-- frequently associated with headaches but commonly associated with nuchal rigidity, fever and altered mental status
- Sinusitis- nasal symptoms and facial pain are common in migraine but consider sinusitis in patients with nasal discharge, fever and halitosis

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Sinus headaches

- Self-diagnosed sinus headache is nearly always migraine (90% of the time, American Migraine Study II)
- Migraine is commonly associated with forehead and facial pressure over the sinuses, nasal congestion and runny nose.
- Presence of fever, purulent nasal discharge, halitosis, alteration in smell are common

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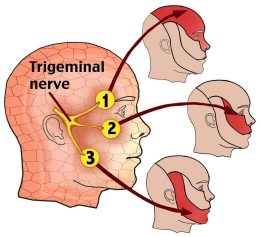
Sinus headache

- The first two branches of the trigeminal nerve– ophthalmic and maxillay --innervate the upper half of the face, including areas overlying the sinuses



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Cases

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CASE # 1

- 48/F with daily constant headache, daily since onset 3 months ago, L sided pressure, 1/10 to 10/10 on the VAS associated with light and noise sensitivity
- No triggers
- Neurological exam, routine blood work and imaging studies of the brain are normal

45

CASE # 1

- What is the diagnosis? Any further work-up? How will you treat this patient

46

CASE # 2

- 53/F with new onset unilateral headaches in the last week, associated with fever, blurry vision and nausea. No precipitating factors or triggers identified.
- Neurological examination significant for tenderness on the left temple

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CASE # 2

- What is the diagnosis?
- What tests will you order, if any?

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