TENSION HEADACHE & MIGRAINES

FIONA RATTRAY & LINDA LUDWIG PG.'S 489 & 497

TENSION HEADACHES V.S. MIGRAINES

- Tension headache **is a muscle-contraction-type headache.**
- Headaches with muscular origins, and are associated with TP's and or myofascial syndromes.
- Headaches are divided into primary & secondary conditions *

- **Primary headaches** are those which the headache is the condition.
- **Secondary headaches** are a result of an underlying pathology, such as hypertension or head trauma.
- Headaches can range from a life-threatening disease to a minor complaint. HA's can be a potential red flag, for an underlying pathology. *

TENSION HEADACHE

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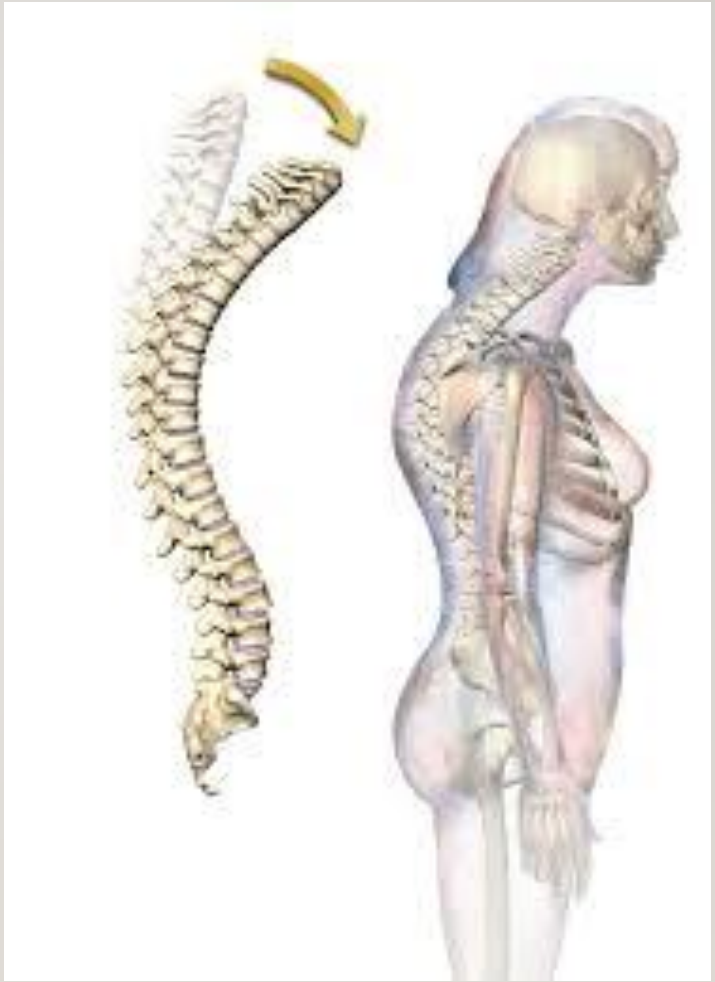
HEADACHES- MUSCULAR ORIGINS

- **Cervicogenic headache-** Unilateral and frontal, coming from the cervical spine.
- **Spinally mediated headache-** Headaches originating in trigger points in muscles of neck and thorax (as low as 10th thoracic vertebrae), hyperactivity of the SNS at the vertebral level.
- **Chronic daily headache (CDH)-** Constant chronic headaches almost daily with fluctuation of pain levels.

CDH has several types of head pain: tension headaches, post-traumatic headaches, migraines, drug-associated headaches, fibromyalgia headaches, and TMJ.

PREDISPOSING FACTORS

- Trigger point stimuli/perpetuating factors (trauma to head, neck or spine)
- Sleep disturbance
- Postural imbalances*
- Temporomandibular joint dysfunction



SYMPTOM PICTURE

- Tension headaches vary; 63% Men and 86% women.
- Chronic tension headaches occur in 3% of the population.
- Family history contributes 40-50% of these headache suffers .
- P is felt BL, diffuse and constant with tensions HA's, dull and P is in the referral pattern of trigger points.
- Cervicogenic & spinally mediated HA's: Associated neck and shoulder P.
- Chronic daily headaches: Shoulder and periscapular P.

SYMPTOM PICTURE CONT.

- These HA's start early in adulthood.
- Symptoms may last 30 mins to weeks, Chronic tension headaches last more than 15 days.
- **Associated symptoms**: Muscle tenderness, stiffness, hypertonicity, and loss of appetite.
- **Aggravating factors:** Stress, fatigue, cold, hypoglycemia**, poor posture, and decrease in ROM of head and neck.

CONTRAINDICATIONS

- Do not perform deep work during a tension HA
- Avoid deep pressure while treating hyperirritable trigger points, due to "kick back" pain*
- **What is Kick back pain**? *Recurrence of the clients symptoms hours or days post treatment.

HEALTH HISTORY QUESTIONS

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ASSESSMENT, OBSERVATION, PALPATION & TESTING

- **Observation**: Postural imbalances*
- **Palpation**: Mastication structures, neck, shoulder, and thoracic region may be hypertonic and tender
- **Testing**: AF ROM of C/S may be reduced due to lack of mobility, decrease in mandibular motion. Strength may be reduced and weak in C/S.
- Cervical distraction tests, compression, and Spurling's are common test's used to differentiate a facet joint irritation that may underlie the headache

DURING HEADACHE TREATMENT

- **Pre-treatment hydro**: Heat to affected muscles, cold on the referral pattern.
- **Positioning**: Supine or side lying, prone may not be tolerated due to compression of the facial muscles, this position may cause more irritation. Eye cover provided if lights are too bright
- Treat compensatory structures, deep diaphragmatic breathing encouraged
- **Essential oils:** lavender, peppermint or blue chamomile (25 drops to 50ml of carrier oil)
- Effleurage, petrissage at to head, neck and shoulders, Petrissage is used at mm's of mastication, facial muscles and scalp. TRP work mm stripping and gentle ischemic compressions, heat then stretch 30 sec+
- Pain-free joint play at the C/S
- *Check in with your client's P tolerance

TX CONT.

- Referral of TRP's in book
- PIR used to gently increase ROM following TRP work
- As TX progress, ask if headache has reduced. If it has all the affected muscles have been treated. If not, should include synergist and antagonist muscles that refer to the headache area.
  - However in one tx the you should maintain a balance btwn the desire to thoroughly inactivate all TRP's causing the headache and overtreatment.
- The head, neck and shoulder tx should be finished with PROM, gentle long axis traction or GTO release to the occiput
- If tolerated, work in prone to include general soothing Swedish work to the shoulders and upper thoracic area. Areas of hypomobility in the thoracic spine and ribs to be treated with joint play
- Any underlying postural or joint dysfunctions are treated in subsequent visits.

BETWEEN HEADACHES

- TX goals are to reduce sympathetic nervous system firing, hypertonicity, TRP's and joint dysfunctions as well as to increase ROM and tissue health
- This treatment is similar to a **during headache treatment**, however the therapist can be more vigorous.
- Start introducing joint play techniques and fascial work.

SELF-CARE

- Rest from activity following treatment of TRP's.
- Hot bath or other hot hydrotherapy for affected muscles after TRP work.
- Self-care hydro during headache: contrast towels applied to neck and head
- DB to reduce stress levels and P.
- Self massage & P free stretching/Active free ROM. Frequently repeated
- Strengthening program for weak affected areas.
- Sleeping in a prone position avoided to reduce stresses of C/S positioning.
- Perpetuating factors should be reduced or limited

MIGRAINES

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MIGRAINES

- Migraine HA is **a paroxysmal neurological disorder with many signs and symptoms.**
- Symptoms of migraines may differ from person to person, even in a single individual or during a single episode.
- Migraine HA's are divided into primary & secondary conditions.

PRIMARY & SECONDARY

- PRIMARY are those in which the **HA is the condition**, such as tension, migraine, mixed, transformational and cluster. Episodic HA's give off a clear endpoint.
- SECONDARY are caused by an underlying pathology.

MIGRAINE THEORIES

- Physician Thomas Willis 1672, had the concept that migraines may have a vascular origin.
- By the 1930's, the theory became the vascular model of migraines leading to idiopathic mechanism triggers, vasoconstriction of the intercranial arteries. Upon, Vasodilation than occurred producing P.
- ****Read Pg.498 of the Neurogenic theory**
- Persons' with migraines experienced aura & visual distortions.

HISTORY OF MIGRAINES

- Agony of migraines have been described by people around the world for centuries.
- Many early cultures HA's were a curse from the god's and goddesses, appeal to them for help.
- Ancient Egyptian physicians (1200BC) tied a clay crocodile effigy to the migraine sufferer with a strip of linen inscribed with the names of the gods.
- Other cultures, used pharmacological remedies, such as the ancient Incas used coca juice (contained cocaine), dripped on an incision in the scalp to relieve P.
- Native Americans used willow bark extract as an analgesic for head P.
- Ancient Chinese (1000BC) treated with acupuncture, herbs, diet and lifestyle changes.

CAUSES OF MIGRAINE HA'S

- **Unknown**: CNS disorder, secondary intracranial vasodilation followed by vasoconstriction.
- **Genetics**: familial hemiplegic migraines.
- **Triggering factors**: Stress, food additives, hunger, medication, weather change, visual stimuli (sunlight, bright lights, or computer screens), auditory stimuli (loud music), olfactory stimuli (perfumes, colognes, aftershave lotions, tobacco smoke, paint, diesel fuel, gasoline), Sleep (too long, too short), hormonal shifts (ovulation, pregnancy, or breast feeding).
- **Aggravating factors:** movement or change in position, TRP's, and/or postural dysfunctions

MEDICATIONS

- **Aggravating factors:** Movement, certain position change, Postural dysfunction such as hyperkyphosis, hyperlordosis.
- **Medically:** Most migraines are treated with prescription medication, however certain medications can cause adverse reactions, and increase symptoms.
- Medications used as some examples: **Isometheptene (Midrin**) Vasoconstrictor,
- **Aspirin, naproxen and Anacin**: Analgesics, **Fiorinal** and **Fioricet** combine analgesics with barbiturates and potentially codeine.
- **Compazine and Thorazine**: Tranquillizers, **Sumatriptan (Imitrex**) mimics Serotonin.

SYMPTOM PICTURE

- Women 25% Men 8% are affected by migraines.
- 70% contributes to potential family history of migraines.
- 50 % report fluid retention before an attack, increase in stress and fatigue 24 hour before a migraine arises.
- P is pulsating and moderate to severe intensity; unilateral in 60% of sufferers. Dull ache or sensation of pressure which gradually localizes to one area, intensity rising to more intense and pounding over several minutes or can last for hours. Abrupt, and physical exertion may aggravate symptoms. If persistent, hospitalization may be needed.
- Potential BL non throbbing HA's could occur.

SYMPTOM PICTURE

- Migraine HA's can begin in childhood, adolescence or early adulthood.
- Frequency less than 1x/week & last for 4-72 hours.
- Onset is variable, early morning is common.
- **Associated symptoms:** Muscle soreness, hypersensitivity to light and sound.
- **ANS symptoms**: GI problems (nausea, vomiting, and diarrhea).
- **Cutaneous vasoconstriction**: Cold extremities, and sweating.
- Migraine is divided into 2 main categories: with or without aura.

MIGRAINE WITH OR WITHOUT AURA

WITHOUT

- "Common migraine:: 85% of sufferers.
- 24-48 hour period prior to migraine, they experience alteration of CNS activity such as mood changes, food cravings, altered sensory perception, excessive yawning and memory dysfunction.

WITH

- "Classic migraine": 15% of sufferers.
- Associated with reduction of cerebral blood flow, gradually over 5-20 mins, lasting less than 60 mins.
- Auras are usually visual, flashing lights, zig zag lines or visual distortion.

MIGRAINES IN CHILDREN

- 5 % of all children.
- Early childhood, boys > affected than girls.
- Teen years, migraines are more affected in girls.
- Abdominal P, cramping, vomiting, episodic vertigo, ANS symptoms.
- Usually one or both parents have a history of migraines.

HIGH RISK HA'S TO REPORT TO PHYSICIAN PG 502

- New HA after the age of 50
- New, onset, and or different HA
- "Worst" HA they've ever experienced
- Recent history of Acute head trauma
- Onset of HA worsening with exertion, coughing, or straining
- HA felt with drowsiness, confusion, weakness, ataxia, loss of coordination
- New HA in client with cancer or HIV
- Neck rigidity and fever
- HA is associated with hypertension

WARNING SYMPTOMS- REPORT TO PHYSICIAN PG 503

- Meningitis
- New HA with pregnancy
- Cerebral aneurysm
- Brain tumor
- Diabetes Mellitus Hypoglycemia
- Temporal Arteritis P
- Lyme Disease
- Trigeminal Neuralgia P
- Acute Sinusitis P
- Low pressure HA syndrome P

MIXED & TRANSFORMATIONAL HA'S

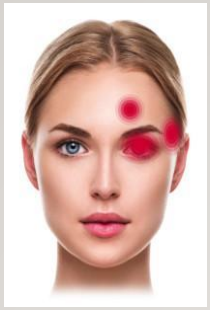
- HA's that share tension and migraine type symptoms called "mixed HA's."
- Underlying tension HA, periods of migraine symptoms.

SYMPTOMS

- P is BL with mixed HA's
- 20-40 years old
- Frequency is often daily, may come on at any time of the day
- **Aggravating factors:** mental or physical activity.

SYMPTOM PICTURE

- The pain is bilateral w mixed headaches
- The headaches begin when the pt is between 20 and 40 years of age
- The frequency is often daily
- Episodic headaches have clearly identifiable endpoints, whereas chronic daily or near daily headaches are constant, w fluctuations in pain levels.
- The headache may come on at any time of the day.
- Associated symptoms are nausea, vomiting, IBS, sleep disturbances and depression
- Aggravating factors are mental or physical activity
- During the headache the person presents differently depending on the associated symptoms



CLUSTER HA'S

- Potential abnormal hypothalamic function.
- Grouping of HA's, often 1x/day for many weeks.
- Ha's may disappear for months.
- Usually no family history.
- Tobacco use is more prevalent in this type of HA.

SYMPTOMS

- P is unilateral, periorbital, referral into the jaw or teeth.
- 20-40 years old.
- 1-6 episodes per day, could last up to 30 mins-3hrs.
- Potential agitation, hyperactive and may pace the room, and difficult to position themselves.

CONTRAINDICATIONS

- During a migraine, massage may be CI'd depending on the pt symptoms
- Avoid heat on the neck or head during a migraine, heat causes painful vasodilation.
- Do not work deeply during a migraine.
- Avoid loud music or bright lights, for sensitivity.
- During attacks or between, avoid the use of fragrances and essential oils, these may be triggers.

HEALTH HISTORY QUESTIONS

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ASSESSMENT

- **Observation**: Postural, FHP, hyperkyphosis, hyperlordosis, scoliosis, pes planus
- **Palpation**: Neck, shoulder and thoracic muscles, and muscle of mastication may be hypertonic and tender.
  - Muscles of respiration are also likely hypertonic (diaphragm, intercostals, scalenes and SCM)
- **Testing**: AF PR ROM, potential reduced mobility
- **AR strength testing:** weaker or overused.
- **Special tests**: VBI, Spurling's test, Blood pressure, Cervical compression, Cervical distraction tests.

TREATMENT DURING AN ATTACK

- 30-45 mins to avoid exhausting the client.
- Treat compensatory structures, DDB to promote relaxation.
- **Position:** supine or side lying, towel may be used to cover clients eyes. Prone may be poorly tolerated
- **Hydro**: Cold or Ice to head and neck.
- **Tx goal:** decrease pain and hypertonicity and to work within the pt's pain tolerance. If tp is unable to tolerate direct work to the head, scalp and neck, hand and foot massage may be tolerated while cold cloths are applied to the head and neck.
- Lymphatic drainage, GSM to head, neck and shoulders. Gentle pressure point work to frontal, temporal, maxillary, and occipital areas.
- GTO release to suboccipitals.
- Long axis traction to occiput, GSM to temporalis and masseter.
- Potential TRP's, muscle stripping and intermittent ischemic compressions.
- PIR with associated eye movements to gently increase ROM to the neck

TREATMENT BETWEEN ATTACKS

- TX goal: reduce sympathetic nervous system firing, hypertonicity , TRP's and joint dysfunctions and to increase ROM and tissue health
- Similar to treatment during an attack, the therapist can be more vigorous.
- **Positioning:** Prone, supine and side lying are indicated.
- **Hydro**: Hot hydrotherapy are needed, essential oils Lavender and peppermint(25 drops to 50ml of carrier oil) always assess trigger smells first.
- Prone position to treat thoracic and lumbar areas.
- Joint mobilizations to cervical and thoracic hypomobile segments grade 1, 5-10 times.
- Any postural or TMJ dysfunctions that are present are also addressed

SELF-CARE

- Self massage of neck and face, scalp
- Hydrotherapy before a migraine: Hot, full immersion baths when pt feels cold to help abort the headache.
- Hydrotherapy during a migraine: Ice packs applied to arteries of the scalp and neck to reduce P.
- Stretching neck and shoulder areas.
- Behavioural modifications: Regulating sleep, regular meals, exercise, avoid food relating triggers, managing stress. Refer to Physician if HA's worsen.
- Refer to physician if the headache worsens; chiro, osteopath, craniosacral practitioner, dentist or acupuncturist may be appropriate