

COMMON INFLAMMATORY
ARTHRITIC CONDITIONS
ASSESSMENT & TREATMENT

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TYPES OF INFLAMMATORY ARTHRITIS

- ANKYLOSING SPONDYLITIS
- RHEUMATOID ARTHRITIS
- LUPUS (SLE-SYSTEMIC LUPUS ERYTHEMATOSUS)
- PSORIATIC ARTHRITIS
- REACTIVE ARTHRITIS
- GOUT/PSEUDOGOUT
- POLYMYALGIA RHEUMATICA

PATIENT HISTORY: *CHRONIC SYSTEMIC*

- PAIN IS ALL THE TIME
- SLEEP USUALLY AFFECTED
- NO DISTINCT ONSET OR MECHANISM
- PAIN IS DESCRIBED AS BEING EVERYWHERE
- NOTHING MAKES IT BETTER
- OFTEN ASSOCIATED WITH PSYCHO-EMOTIONAL CHARACTERISTICS
- IN JOINTS: REDNESS, SWELLING, TENDERNESS



GENERAL SYMPTOMS OF INFLAMMATORY ARTHRITIS

- MORE THAN ONE JOINT
- USUALLY BILATERAL
- CAN AFFECT OTHER ORGANS (LUNGS, HEART, EYES, SKIN)
- REDNESS, TENDERNESS, SWELLING.
- AUTOIMMUNE COMPONENT

ANKYLOSING SPONDYLITIS

- MOSTLY INVOLVED IN THE SPINE
- 2-3X MORE COMMON IN MEN
- **BEGINS** IN TEENAGE YEARS UP TO AGE 30
- LIGAMENTS BEGIN TO SOLIDIFY DUE TO INFLAMMATION
- SYMPTOMS: STIFFNESS AFTER PROLONGED REST OR IN THE MORNING – BETTER WITH EXERCISE
- GENETIC MARKER HLA-B27 FOUND TO BE INVOLVED IN 90% OF CASES.



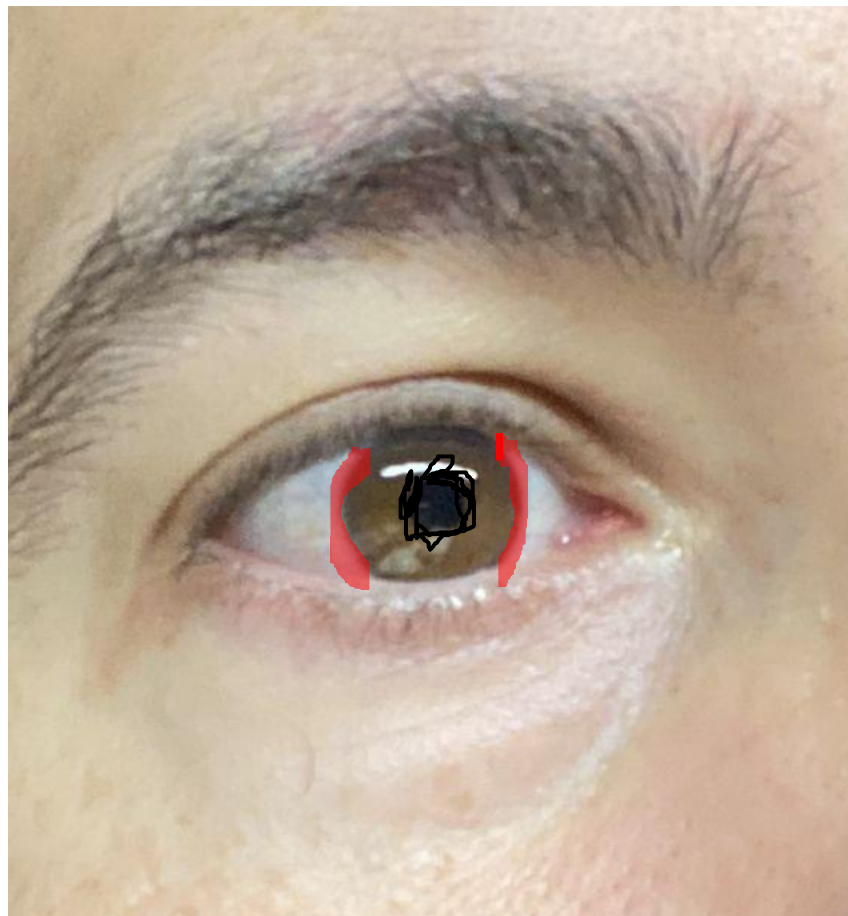
ANKYLOSING SPONDYLITIS

- DIAGNOSIS MADE BY A COMBO OF HISTORY, EXAM, AND BLOOD LAB AND RADIOGRAPHY.
- EYE INFLAMMATION CAN OCCUR IN THIS CONDITION (UVEITIS)
- ON PHYSICAL EXAM WE CAN SEE IF UVEITIS IS BY AN INDICATION OF REDNESS

REACTIVE ARTHRITIS (REITER'S SYNDROME)

- BILATERAL PAIN AND JOINT SWELLING IN THE LOWER EXTREMITIES DUE TO AN INFECTION IN THE GUT, URETHRA, OR EYE.
- “CAN'T SEE, CAN'T PEE, CAN'T DANCE WITH ME”
- USUALLY ASSOCIATED WITH A POSITIVE HLA-B27 MARKER.
- UVEITIS IS CAN HAPPEN IN ANY OF THE INFLAMMATORY ARTHROPATHIES SO KEEP AN EYE OUT FOR IT.
- DIFFERENT THAN PINK EYE – NO PUS OR DISCHARGE.

UVEITIS



RHEUMATOID ARTHRITIS

- JOINT INFLAMMATION/SWELLING
- REDNESS/HEAT FROM JOINTS
- FATIGUE
- PROBLEMS WITH EYES, LUNG, HEART
- CARTILAGE GETS ERODED BY THE INFLAMMATION
- MADE WORSE BY DIET: THE NIGHTSHADES: GREEN PEPPER, WHITE POTATOES, TOMATO, EGGPLANT. SUGARS TEND TO FLARE IT UP.



PSORIATIC ARTHRITIS

- RED SCALY SILVER PATCHES ON THE EXTENSOR SURFACES OF ARMS AND LEGS
- JOINT PAIN, STIFFNESS, SWELLING
- WORSE FIRST THING IN THE MORNING
- SMALL DENTS AND DEPRESSION IN THE NAIL BEDS.



AS, RA, REITER'S, PA ASSESSMENT & TREATMENT

- RECOGNIZE CHRONIC SYSTEMIC PRESENTATION
- BLOOD WORK
- APPLY PERFUSION TREATMENT, DISTAL SYSTEMIC REGULATORY POINTS, AURICULAR POINTS, ENCOURAGE AEROBIC EXERCISE
- NSAIDS, NAPROXEN, ANTI-TNF MEDS, DMARDS (DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS)
- ANTI-BIOTIC DROPS FOR UVEITIS

POLYMYALGIA RHEUMATICA (PR)

- TYPICALLY OVER 70 YEARS OLD
- WIDESPREAD JOINT PAIN
- FLU-LIKE SYMPTOMS
- FATIGUE, FEVER, WEIGHTLOSS
- CRP AND ESR ELEVATED IN BLOOD WORK
- 15% DEVELOP TEMPORAL ARTERITIS

TEMPORAL ARTERITIS

- BLOCKAGE OF BLOOD VESSELS OF HEAD AND NECK
- COMMON IN TEMPORAL ARTERY
- HEADACHE, DOUBLE VISION, DIZZINESS
- **SEND TO ER RIGHT AWAY DO NOT TAKE ANY CHANCES**



ASSESSMENT/TREATMENT PR

- RECOGNIZE CHRONIC SYSTEMIC PRESENTATION
- BLOOD WORK
- APPLY PERFUSION TREATMENT, DISTAL SYSTEMIC REGULATORY POINTS, AURICULAR POINTS, ENCOURAGE AEROBIC EXERCISE
- NSAIDS, NAPROXEN, ANTI-TNF MEDS, DMARDS (DISEASE-MODIFYING ANTI-RHEUMATIC DRUGS)
- **ER IF TEMPORAL ARTERITIS SEEN**

LUPUS

- MIMIC OTHER INFLAMMATORY AUTOIMMUNE ARTHOPATHIES BUT HAVE A DISTINCTIVE FACIAL BUTTERFLY RASH
- SKIN LESIONS THAT APPEAR MORE SO AFTER SUN EXPOSURE
- RAYNAUD'S PHENOMENON
- HEADACHES, JOINT PAIN, CAN HAVE ORGAN INVOLVEMENT
- MORE PREVALENT IN WOMEN



SLE/LUPUS ASSESSMENT & TREATMENT

- RECOGNIZE CHRONIC SYSTEMIC PRESENTATION
- BLOOD WORK
- REFER TO RHEUMATOLOGIST, DERMATOLOGIST
- APPLY PERFUSION TREATMENT, DISTAL SYSTEMIC REGULATORY POINTS, AURICULAR POINTS, ENCOURAGE AEROBIC EXERCISE
- MEDS INCLUDE ANTI-MALARIAL DRUGS IE. HYDROXYCHLOROQUINE, CHLOROQUINE ETC

GOUT

- BUILD-UP OF URIC ACID IN THE BLOOD
- DUE TO EATING RICH, FATTY FOODS, AND PROCESSED MEAT AND FISH
- EXCESSIVE ALCOHOL CONSUMPTION
- PAINFUL, RED, SWOLLEN JOINTM, USUALLY THE BIG TOE
- OFTEN CONFUSED WITH ARTHRITIS OR A FRACTURE



GOUT ASSESSMENT & TREATMENT

- RECOGNIZE CHRONIC SYSTEMIC PRESENTATION
- RULE OUT DJD AND/OR FRACTURE
- BLOOD WORK
- REFER TO MD
- APPLY PERFUSION TREATMENT, DISTAL SYSTEMIC REGULATORY POINTS, AURICULAR POINTS, ENCOURAGE AEROBIC EXERCISE
- TYPICAL TREATMENT IS ALLOPURINOL

PSEUDOGOUT

- CAUSED BY CALCIUM CRYSTALS THAT FORMS IN THE SYNOVIUM OF THE JOINT
- MOST COMMON IN THE KNEES BUT CAN APPEAR ELSEWHERE
- SOMETIMES ASSOCIATED WITH THYROID ISSUES



PSEUDOGOUT ASSESSMENT & TREATMENT

- RECOGNIZE CHRONIC SYSTEMIC PRESENTATION
- BLOOD WORK
- X-RAYS TYPICALLY DONE IF BLOOD WORK IS NEGATIVE
- APPLY PERFUSION TREATMENT, DISTAL SYSTEMIC REGULATORY POINTS, AURICULAR POINTS, ENCOURAGE AEROBIC EXERCISE
- NSAIDS, NAPROXEN, LOW DOSE GOUT MEDICATION CAN HELP (COLCHICINE)

ASSESSMENT

BLOOD TEST MARKERS

- **ESR (ERYTHROCYTE SEDIMENTATION RATE):** MEASURES THE LEVEL OF INFLAMMATION IN THE BODY. IT IS NON-SPECIFIC AND COULD BE ELEVATED FOR MANY REASONS.
- **C-REACTIVE PROTEIN (CRP):** MEASURE THE LEVEL OF INFLAMMATION IN THE BODY BUT CAN BE DUE TO HEART DISEASE, CANCERS, INFECTIONS, AUTOIMMUNE DISEASES ETC
- **RHEUMATOID FACTOR (RF):** A POSITIVE TEST INDICATES AN ASSOCIATION WITH AUTOIMMUNE DISEASES, IN PARTICULAR RHEUMATOID ARTHRITIS

BLOOD TEST MARKERS

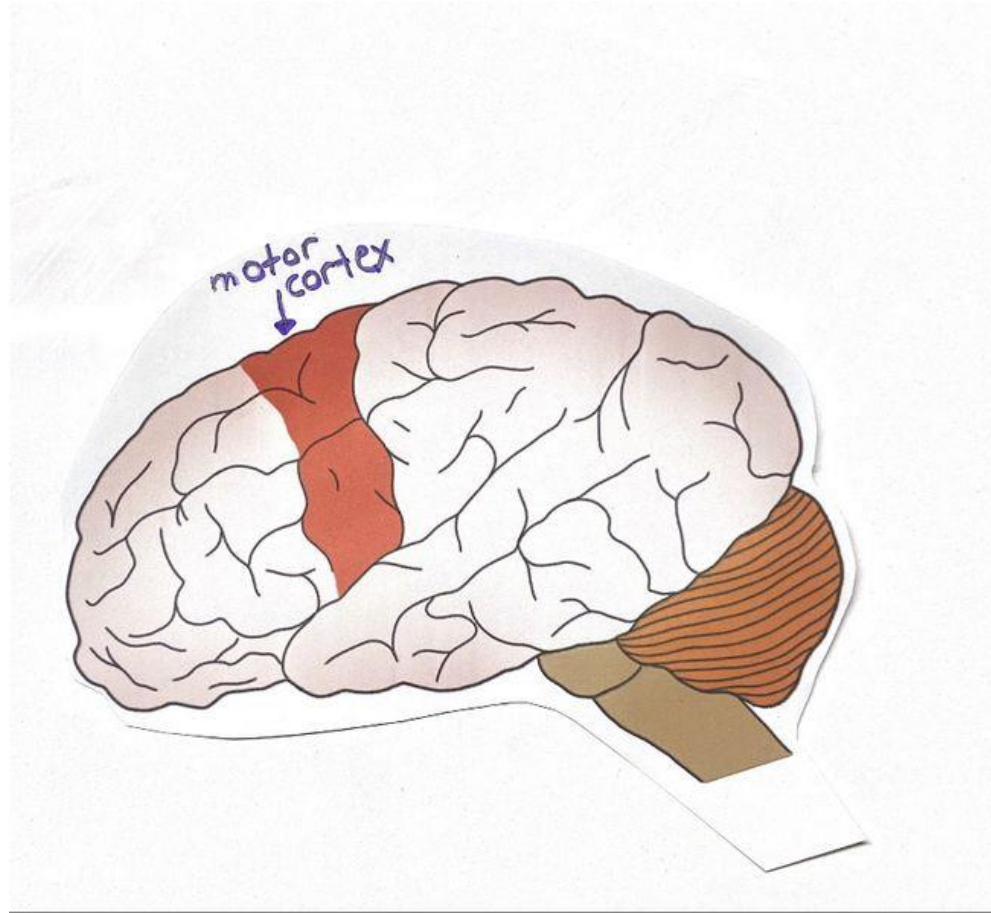
- **ANTI-CCP (ANTI-CYCLIC CITRULLINATED PEPTIDE ANTIBODY):** COMMONLY IN RA PATIENTS. USEFUL FOR DETERMINING EARLY AND/OR BORDERLINE CASES OF RA. A STRONGER INDICATOR THAN RF FOR RA.
- **ANA (ANTINUCLEAR ANTIBODY):** THIS IS USED TO SCREEN AUTOIMMUNE DISORDERS. ALMOST 100% POSITIVE IN SLE PATIENTS CAN BE POSITIVE FOR OTHER CONDITIONS.
- **ANTI-dsDNA:** VERY SPECIFIC TO SLE. ALSO SEEN IN RA AND AUTOIMMUNE HEPATITIS.

BLOOD TEST MARKERS

- **HLA (HUMAN LEUKOCYTE ANTIGEN):** SPECIFICALLY HLA-B27. POSITIVE IN SPONDYLOARTHROPATHIES, IE ANKYLOSING SPONDYLITIS, SOMETIMES PSORIATIC ARTHRITIS, AND IN REACTIVE ARTHRITIS.
- ***WHAT TESTS SHOULD YOU ORDER IF YOU SUSPECT INFLAMMATORY JOINT ARTHRITIS:***
 - **ESR, CRP** TO ESTABLISH LEVEL OF INFLAMMATION
 - **RF, ANA, HLA-B27** TO DETERMINE AUTOIMMUNE DISEASE
 - **ANTI-CCP, ANTI dsDNA** TO DETERMINE SPECIFICITY OF ILLNESS

NEUROLOGY

MOTOR CORTEX



WHAT IS CORTICAL INHIBITION?

- STUDIES SHOW THAT CHRONIC SYSTEMIC/AUTOIMMUNE CONDITIONS ARE ASSOCIATED WITH CORTICAL INHIBITION.
- THIS AFFECTS MULTIPLE PARTS OF THE BRAIN INCLUDING THE MOTOR CORTEX WHICH REDUCES CEREBRAL OXYGEN TRANSPORT, BLOOD FLOW, AND GLUCOSE METABOLISM.
- IN RESEARCH ST 36 HAS BEEN SHOWN TO INCREASE MOTOR CORTICAL EXCITATION AND DECREASE MOTOR INHIBITION
- ALSO THE HIGHER THE DEQI SENSATION CORRELATED WITH INCREASED MOTOR EXCITATION AND DECREASED PAIN – ***WHAT COULD THIS BE ATTRIBUTED TO?***

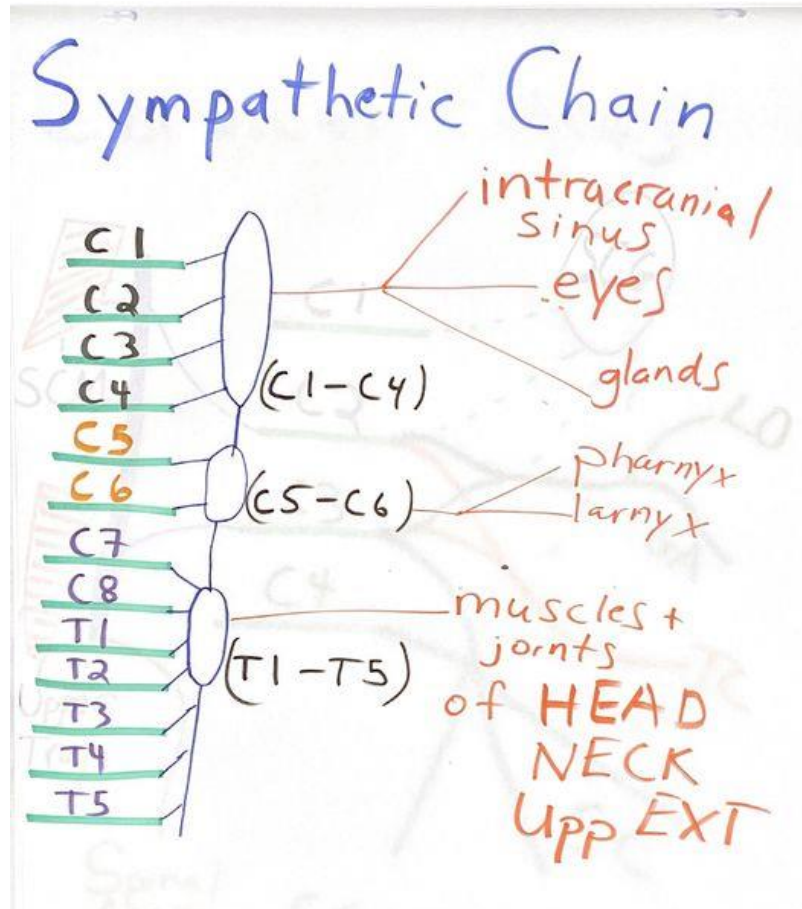
CPM: CONDITIONED PAIN MODULATION

- RELEASE OF ENDORPHINS FROM THE BRAIN AS A RESULT OF A SPATIALLY DISTANT NOXIOUS STIMULUS.
- FOR EXAMPLE THE SHOULDER PAIN PATIENT IS NEEDLED BY AN ACUPUNCTURE INSERTION INTO THE LOWER EXTREMITY (SPATIALLY DISTANT FROM THE SHOULDER) WHICH CREATES A DEQI SENSATION (NOXIOUS STIMULUS)
- THIS OPIOD RELEASE NEUROMODULATES PAIN IN THE SHOULDER,

TREATMENT PROTOCOLS

PERFUSION TREATMENT

(15-20 MINS, T1-T5/T10/L2, 2 HZ)



SYSTEMIC REGULATORY POINTS

- ST 36: RESEARCH DEMONSTRATES MOTOR CORTEX EXCITATION AND REDUCTION OF CORTICAL INHIBITION: TEMPORARILY INCREASED MUSCULAR STRENGTH AND CO-ORDINATION.
- LR 3: RESEARCH DEMONSTRATES THAT IT CAN IMPROVE BLOODFLOW TO THE MESENTARY AND THE BRACHIAL ARTERIES
- ***MESENTARY: AN ORGAN THAT ATTACHES THE INTESTINES TO THE POSTERIOR ABDOMINAL WALL WHICH CARRIES LYMPHATICS, NERVE SUPPLY AND BLOOD SUPPLY TO THE INTESTINES***

CASE STUDY

CASE STUDY - HISTORY

- 58 YEAR-OLD FEMALE PRESENTS WITH MODERATE BILATERAL KNEE SWELLING AND PAIN FOR THE PAST 2 MONTHS
- NO TRAUMA. REPORTS IT HAS BEEN GETTING WORSE OVER THE LAST MONTH.
- PAIN WORSE IN THE MORNING
- UNDETERMINED RASH ON HER CHEEKS
- NO HISTORY OF ANY HEALTH ISSUES, PATIENT APPEARS TO BE A BIT ANXIOUS

CASE STUDY - ASSESSMENT

- OBSERVATION REVEALED THAT THERE WAS SOME PITTING EDEMA IN IN BOTH KNEES AROUND THE PATELLA TENDON
- EXSTORE MUSCLE TESTING BEGAN TO REVEAL THAT ALL MUSCLES WERE TESTING WEAK: FLEXORS, ABDUCTORS, ADDUCTORS.
- BECAUSE SHE WAS CLEARLY PRESENTING WITH CHRONIC SYSTEMIC SYMPTOMS I REFERRED HER TO HER FAMILY DOCTOR TO HAVE BLOOD WORK – A FULL ARTHITIDE PANEL.

BLOOD TEST RESULTS

- CRP WAS NEGATIVE
- RF, ANA WAS NEGATIVE
- ANTI-dsDNA WAS **POSITIVE**
- *SUGGESTS SLE OR ANOTHER AUTOIMMUNE CONDITON*

JILENA BARG

CHEMISTRY III						
Test Name	Result	Normal Range	Units	Date/Time	Status	
ANTI-NUCLEAR ANTIBODY	NEGATIVE	N	Negative	2020-02-28 10:05:00	Final	
Antinuclear antibodies (ANAs) are commonly detected in the sera of patients with systemic autoimmune rheumatic disease (systemic rheumatic diseases; Connective tissue diseases). A negative test rarely needs to be repeated unless there is a strong clinical suspicion of evolving disease or a clinical change suggesting diagnostic review.						
Test performed using indirect immunofluorescent antibody technique.						
ANTI-dsDNA	30	HI	xx	Final	2020-02-28 10:05:00	
POSITIVE						
Positive anti-dsDNA, every 212, antibodies against dsDNA are occasionally seen in other conditions including rheumatoid arthritis, juvenile arthritis, drug-induced lupus and sarcosine hepatitis.						
Tested by a multiplex flow immunoassay (BioPlex) method.						
CHEMISTRY IV						
Test Name	Result	Normal Range	Units	Date/Time	Status	
RHEUMATOID FACTOR, SERUM	<10	N	<14	IU/mL	2020-02-28 10:05:00	Final
CHEMISTRY V						
Test Name	Result	Normal Range	Units	Date/Time	Status	
C-REACTIVE PROTEIN	0.7	N	<1.0	mg/L	2020-02-28 10:05:00	Final
BIOCHEMISTRY						
Test Name	Result	Normal Range	Units	Date/Time	Status	
ANTI-ENA SCREEN	NEGATIVE	N	Negative	2020-02-28 10:05:00	Final	
The ENA test screens for the presence of antibodies to SS-A, SS-B, RNP, Sm, Scl-70, and Jo-1.						
Tested by a multiplex flow immunoassay (BioPlex) method.						
END OF REPORT						

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MAY 3 2020 3:04PM CROWN POINT FAMILY HEALTH

TREATMENT PLAN

- FAMILY PHYSICIAN REFERRED PATIENT TO A RHEUMATOLOGIST FOR FURTHER TESTING
- ACUPUNCTURE TREATMENTS CONSISTED OF
 - LOWER EXTREMITY PERFUSION TREATMENTS, 15 MINS AT 2 HZ.
 - SYSTEMIC REGULATORY POINTS: ST 36, LR 3 BILATERAL