LUPUS AND HEART DISEASE

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INFORMATION ON HEALTH RISKS ASSOCIATED WITH LUPUS AND WAYS TO MINIMIZE RISKS
HEART DISEASE IN PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOSIS

• HYPERTENSION
  • 50% OF LUPUS PATIENTS WILL HAVE HTN
  • BP > 140/90 MMHG (120/80 NORMAL)
• CAUSES:
  • OVERWEIGHT STATUS
  • LONG TERM STEROID USE
  • KIDNEY DISEASE
  • MEDICATION INDUCED
• COMPLICATIONS
  • KIDNEY FAILURE, STROKE, HEART DISEASE
HEART DISEASE IN PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOSIS

PERICARDITIS

INFLAMMATION OF THE PERICARDIUM

- COMMON MANIFESTATION: SYMPTOMATIC TO ASYMPTOMATIC
- TX: NSAIDS, STEROIDS, COLCHICINE
HEART DISEASE IN PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOSIS

MYOCARDITIS

INFLAMMATION OF THE MYOCARDIUM.

- CHEST PAIN, SOB, FEVERS, PALPITATIONS
- CAN RESULT IN DECLINE IN HEART FUNCTION
- REVERSIBLE WITH TREATMENT OF DISEASE AND HEART MEDICATIONS
- UNCOMMON
HEART DISEASE IN PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOSIS

VALVULAR DISEASE

• **ENDOCARDITIS- INFECTION OR INFLAMMATION OF THE HEART VALVES.**
  - causes the surfaces of the heart valve to thicken or develop wart-like growths (lesions). These lesions can become infected, a condition called bacterial endocarditis.
  - Valves can be leaky or stiff from thickening
  - APLA: clots on valves (stroke)
  - Monitoring and valve replacement when necessary
  - ASA
HEART DISEASE IN PATIENT WITH SYSTEMIC LUPUS ERYTHEMATOSIS

- ARRHYTHMIA
  - FAST HEART RATE (DISEASE ACTIVITY)
    - SINUS TACHYCARDIA
    - ATRIAL FIBRILLATION
    - SUPRAVENTRICULAR TACHYCARDIAS
  - EXTRA HEART BEATS
    - PVC, PAC
CORONARY ARTERY DISEASE

• ATHEROSCLEROSIS: THERE IS INCREASED LIKELIHOOD OF PLAQUES ON THE ARTERIAL WALLS
• THROMBOSIS OR CLOT FORMATION (APLAS)
• INFLAMMATION OF THE HEART ARTERIES WITHOUT BLOCKAGE.
CLINICAL PRESENTATION

- CHEST PAIN, JAW PAIN
- SHORTNESS OF BREATH
- NAUSEA OR VOMITING
- LOSS OF CONSCIOUSNESS
- FATIGUE
Coronary Artery Disease

- Nutritional status/weight
- Disease/steroids
- Stress/mental status
- Cholesterol
- High BP
- Platelets
TREATMENT

- SEVERE BLOCKAGE OR HEART ATTACK: OPENING AND STENTING OF BLOOD VESSEL(S)
- MEDICAL MANAGEMENT: ASPIRIN (INCREASED RISK OF BLEEDING), BLOOD PRESSURE MEDICATION, CHOLESTEROL LOWERING MEDICATION
- LIFESTYLE CHANGES: NUTRITION AND EXERCISE
- CARDIAC REHABILITATION
- DECREASED STEROID USE
HYPERTENSION (HIGH BP)

- Eat foods that are low in sodium (salt), calories, and fat.
- Eat more fresh fruits, vegetables, and low-fat dairy products.
- Lose weight if you are overweight or obese, and increase your physical activity.
- Take your BP medications regularly.
- Monitor your BP regularly.
HIGH CHOLESTEROL

- LDL: “BAD CHOLESTEROL”
- TRIGLYCERIDES: STEROIDS, DM
- HDL: IMPROVES WITH EXERCISE
NUTRITION

HEALTHY EATING PLATE

Use healthy oils (like olive and canola oil) for cooking, on salad, and at the table. Limit butter. Avoid trans fat.

The more veggies – and the greater the variety – the better. Potatoes and French fries don’t count.

Eat plenty of fruits of all colors.

STRESSED
Spelled backwards is DESSERTS
FOODS TO EAT
FOODS TO AVOID
FOODS THAT INCREASE TRIGLYCERIDE LEVELS
• Eat foods which are as close to nature as possible: unprocessed
  • Decreased additives, preservatives, fats, and sugar

• Decrease consumption of refined carbs and processed grains

• Saturated/partially hydrogenated fats can significantly increase risk of heart disease

• Eat proteins first, satisfies hunger more than carbs

• Stock up on health snacks: nuts/seeds, fruits, raw veggies with hummus/dips/peanut butter, popcorn (unsalted or un-buttered), dried peas or edamame, occasional unsweetened yogurt
LACK OF EXERCISE

Stress Cycle

- Increased Fatigue
- Decreased Coordination
- Constricted Blood Vessels & Hypertonic Muscle Fibers
- Anaerobic Muscle Contraction & Lactic Acid Byproducts
- Anaerobic Muscle Hypertonicity & Trigger Points
- Muscular Hypertonicity & Static Muscle Performance
- Decreased Static & Dynamic Muscle Performance
- Recurrent Pain
- Depression
- Illness Behavior
- Pain Avoidance
- Immobilization & Disuse
- Subluxation / Vertebral Fixation
- Joint Stiffness & Muscle Weakness

- Constricted Blood Vessels & Hypertonic Muscle Fibers
BENEFITS OF EXERCISE

• REDUCE RISK FOR HEALTH PROBLEMS
  — DEPRESSION, ANXIETY, COGNITIVE IMPAIRMENT
  — CVD, STROKE, DIABETES, AND MORTALITY
• LOWERS BLOOD PRESSURE
• INCREASES METABOLISM
• IMPROVES LIPIDS
• FACILITATES CIRCULATION
• STRENGTHENS HEART FUNCTION
• CRITICAL FOR STRESS MANAGEMENT
EXERCISE RECOMMENDATIONS

• LOW-IMPACT EXERCISE
• START GRADUALLY
• LISTEN TO YOUR BODY
• DO NOT EXERCISE IF JOINTS ARE HOT, SWOLLEN, TENDER OR IN PEAK SUN HOURS.
• SOME DAYS WILL BE BETTER THAN OTHERS
• ALWAYS CHECK WITH YOUR DOCTORS FIRST
IMPACT OF STRESS

• HEADACHES, TIGHT MUSCLES, ANXIETY, PALPITATIONS, DIFFICULTY SLEEPING

• REDUCES IMMUNE FUNCTION, IMPAIRS LIBIDO, CAUSES WEIGHT GAIN

• CAN BE AN UNDERLYING FACTOR IN CHRONIC DISEASES, INCLUDING HEART DISEASE, DIABETES AND CANCER
NOT ALL STRESS IS BAD

• SOME INDIVIDUALS CAN ACCOMPLISH MORE “UNDER STRESS”

• A HEALTHY AMOUNT OF STRESS CAN BE INSPIRING AND MOTIVATING
  • “GIVE ME A DEADLINE”
  • RACE TO THE FINISH LINE

• PLEASURABLE: HORROR MOVIES, ROLLER COASTERS, FIRST-DATES
BRAIN-HEART CONNECTION

I hate when you make me look like an idiot.
STRESS PHYSIOLOGY

- INCREASE IN HR AND BP
- PUPIL DILATION
- VEINS CONSTRICT (LESS BLOOD)
- INCREASE IN BLOOD-GLUCOSE LEVELS
- TENSING OF MUSCLES
- SLOWING OF DIGESTION AND IMMUNE RESPONSE
- TROUBLE FOCUSING ON SMALL TASKS
CARDIOVASCULAR MANIFESTATIONS FROM STRESS

HIGH LEVELS OF ADRENALINE AND CORTISOL
• INCREASE IN BLOOD PRESSURE
• INCREASE IN BLOOD GLUCOSE
• INCREASE IN HEART RATE FROM BASAL RATES
• HIGHER CHOLESTEROL LEVELS

• PALPITATIONS
• HEART ATTACKS
• IMPAIRMENT IN CONCENTRATION/MEMORY
• STROKES
• FATTY LIVER DISEASE
STRONG WOMAN

A woman's Strength isn't just about how much she can handle before she breaks. It's also about how much she must handle after she's broken.
NEGATIVE PSYCHOLOGICAL STATES AND CVD

• 5 NEGATIVE STATES HAVE BEEN LINKED TO CVD
  – HOPELESSNESS
  – PESSIMISM
  – RUMINATION
  – ANXIETY
  – ANGER

Rozanski et al., JACC 2005;45:637-651.
TRANSCENDENTAL MEDITATION

No ruminating!

- Frustration
  - Cortical Inhibition (chaos)

- Appreciation
  - Cortical Facilitation (coherence)
Thank You