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Medical Diagnosis/Disease: Total Hip Arthroplasty (THA)

NCLEX IV (8): Physiological Integrity/Physiological Adaptation

Anatomy and Physiology
Normal Structures

Pathophysiology of Disease
Osteoarthritis is the common reason for an arthroplasty. THA = the prosthesis or implant replaces the ball & socket joint formed by the upper shaft of the femur and pelvis. Both ball & socket components can be cemented in place with polymethyl methacrylate, which binds bones
OA - Gradual loss of articular cartilage with formation of bony outgrowth at the joint margin. Not a normal part of aging but age can contribute to it. Can be caused by a known event or condition that directly damages cartilage or causes joint instability.
Genetic, metabolic, and local factors interact to cause cartilage deterioration from damage at the level of the chondrocytes. The normally smooth, white, translucent articular cartilage becomes dull, yellow, and granular as OA progresses. Affected cartilage steadily becomes softer, and less elastic. It becomes less able to resist wear with heavy use. The body's attempt of cartilage repair cannot keep up with the destruction of OA. As the collagen structures in the cartilage change, articular surfaces become cracked and worn. Central cartilage becomes thinner, cartilage at joint edges becomes thicker and osteophytes form. Joint surfaces become uneven, affecting the distribution of stress.

NCLEX IV (7): Reduction of Risk

Anticipated Diagnostics
Labs
X-Ray - confirm disease and stage joint damage.
Synovial fluid analysis - help distinguish OA from other inflammatory arthritis.
ESR (erythrocyte sedimentation rate) if normal except for slight increase due to acute inflammation
Additional Diagnostics
Bone scan, CT scan, or MRI can detect early joint changes

NCLEX II (3): Health Promotion and Maintenance

Contributing Risk Factors
- Aging
- Decrease estrogen at menopause
- Anterior cruciate ligament injury from quick stops and pivoting
- work that requires frequent kneeling & stooping

Obesity

Signs and Symptoms
- Mild discomfort to significant disability
- Joint stiffness after periods of rest or unchanged position
- Crepitation

- Joint Pain

NCLEX IV (7): Reduction of Risk

Possible Therapeutic Procedures
Non-surgical
- weight loss
- Medications to help with pain and inflammation (Drug Therapy)
- acupuncture
Surgical
Reconstructive surgeries of the affected area such as hip, and knee replacement

Prevention of Complications
(What are some potential complications associated with this disease process)

- difficulty ambulating
- Falls - due to the damages to the knees and hip

- Decreased range of motion

NCLEX IV (6): Pharmacological and Parenteral Therapies

Anticipated Medication Management

NSAIDs

Intraarticular corticosteroids

Analgesics for pain

NCLEX IV (5): Basic Care and Comfort

Non-Pharmacologic Care Measures
- Heat and cold applications
- encourage rest and joint protection
- encourage exercise for people who are obese

NCLEX III (4): Psychosocial/Holistic Care Needs

What stressors might a patient with this diagnosis be experiencing?
- Not being able to move like they used to
- The pain that creates limitations in their daily life
- The uncertainty on how they will pay for surgery or test that need to be done

Client/Family Education

List 3 potential teaching topics/areas
• Educate on the importance of exercise to build strength and improve balance.
• Instruct them on using ice packs to help relieve pain when it's not time for the next course of pain meds.
• Use any assistive device to help ambulate to avoid any further injuries

NCLEX I (1): Safe and Effective Care Environment

Multidisciplinary Team Involvement
(Which other disciplines do you expect to share in the care of this patient)
PT - to help with teaching strength and balance exercises.
Nutritional therapist - Help those who are overweight to gain and maintain a healthy life style
Orthopaedic surgeon