

Student Name: Nicholas Vitella

Medical Diagnosis/Disease: THA (Total Hip Arthroplasty)

NCLEX IV (8): Physiological Integrity/Physiological Adaptation

Anatomy and Physiology

Normal Structures

Hip joint is a ball and socket joint. Femur fits into the socket of the pelvis called the acetabulum. Allows a wide range of motion to support legs and hold the body. This allows mobility and connects the lower extremities with the axial skeleton. 3 axes of movement in the hip joint. Center of axis at femoral head. Transverse axis gives flexion and extension movement. Longitudinal axis gives internal and external rotation. Sagittal axis allows abduction and adduction. These movements are flex, extend, rotate, back and forth, as well as circular motion. It is tighter in extension and more relaxed in flexion. This joint is where the thigh bone meets hip bone. Hip joints are on the top of each thigh bone. Hip joint is one of the largest joints in the body. It is made of bones that connect to one another. Cartilage that covers the top of the thigh bone and the acetabulum socket. This helps absorb impact and friction when moving. Synovium is a thin cover that wraps around the bones and joints. It makes a fluid so bones can move easier without resistance. Bursa is a fluid filled sac to help cushion muscles and tendons for joints while in motion. Ligaments that connect bones together. Muscle to support the joints and help move. To help the hip joint is the gluteals, adductor muscles, iliopsoas muscle, quadriceps, and hamstrings.

Pathophysiology of Disease

Arthritis- inflammation of joints.
Osteoarthritis-most common chronic condition. A slow progressive noninflammatory disorder of the diarthrodial (synovial) joints. It is the gradual loss of articular cartilage with formation of bony outgrowths at the joint margins. Cartilage destruction begins 20-30 but shows effects by 40. Genetic, metabolic, and local factors interact to cause deterioration at the level of chondrocytes. The cartilage becomes dull yellow and granular as the disease progresses. It also is softer and less elastic. The repair can't keep up with the destruction occurring. The surface also cracks and is worn down. They are also uneven contributing to more stress to the joint and causing reduced motion. Secondary synovitis may occur and cause pain and stiffness as well. Pain in the later stage is when articular cartilage is gone and the bony joint surfaces rub against each other.

NCLEX IV (7): Reduction of Risk

Anticipated Diagnostics

Labs

Bone scan
CT scan
MRI
ESR
CBC
renal/liver function tests

Additional Diagnostics



NCLEX II (3): Health Promotion and Maintenance

<u>Contributing Risk Factors</u>
Aging
Drugs
Hematologic or endocrine disorders
Inflammation
Joint instability
Mechanical stress
Neurological disorders
Skeletal deformities
Trauma

<u>Signs and Symptoms</u>
Joint pain
Disability/loss of function
Stiffness
Joint swelling
Crepitation
Deformity
Fatigue
Fever

NCLEX IV (7): Reduction of Risk

<u>Possible Therapeutic Procedures</u>
<u>Non-surgical</u>
adequate exercise and rest therapies
<u>Surgical</u>
Total Hip Arthroplasty

<u>Prevention of Complications</u>
(What are some potential complications associated with this disease process)
Hemorrhage
Infection
Blood clots
Disformity
Dislocation
Chronic pain
Immobility

NCLEX IV (6): Pharmacological and Parenteral Therapies

<u>Anticipated Medication Management</u>
Acetaminophen
NSAIDs
Intraarticular corticosteroids

NCLEX IV (5): Basic Care and Comfort

<u>Non-Pharmacologic Care Measures</u>
Rest
Joint Protection
Heat/Cold applications
Nutritional therapy
Exercise

NCLEX III (4): Psychosocial/Holistic Care Needs

<u>What stressors might a patient with this diagnosis be experiencing?</u>
Fear
Anxiety
Depression

List 3 potential teaching topics/areas

Health promotion Post Op:

Nutrition

Rest

Exercise

Multidisciplinary Team Involvement

(Which other disciplines do you expect to share in the care of this patient)

Physical therapist

Surgeon

Occupational therapist

Nutritionist

Pharmacy