# Affiliated by the Tamil Nadu Dr. M. G. R. Medical University, Chennai.

Saravanampatti Post, Coimbatore – 641 035, T.N

## Unit 3: Deformities

**Bone and Joint Tumors** 

A 35-year-old male presents with a painful swelling in the thigh, suspected to be an osteosarcoma. Priya must decide how to assess and proceed.

Challenge: How should Priya approach the assessment?

#### Possible Solutions:

- 1. Document swelling size, pain, and functional impact.
- 2. Recommend urgent imaging (X-ray, MRI) to evaluate the lesion.
- 3. Refer to an oncologist for biopsy and diagnosis.
- 4. Avoid aggressive manual therapy until malignancy is ruled out.

### L. Chronic Arthritis

A 55-year-old female with rheumatoid arthritis reports joint stiffness. Priya must develop a management plan to address deformities.

Challenge: How should Priya manage the arthritis?

# Affiliated by the Tamil Nadu Dr. M. G. R. Medical University, Chennai.

Saravanampatti Post, Coimbatore – 641 035, T.N Possible Solutions:

- 1. Initiate low-impact exercises to maintain joint mobility.
- 2. Recommend splinting to prevent further deformities.
- 3. Collaborate with a rheumatologist for medical management.
- 4. Educate the patient on joint protection techniques.

### M. Low Back Pain

A 40-year-old male with chronic low back pain reports worsening symptoms. Priya must identify the cause and plan treatment.

Challenge: How should Priya assess and manage the pain?

### Possible Solutions:

- 1. Perform a lumbar assessment to identify mechanical vs. non-mechanical pain.
- 2. Recommend core strengthening and posture correction exercises.
- 3. Refer for imaging if red flags (e.g., neurological deficits) are present.
- 4. Educate the patient on ergonomics and pain management.

## N. Spinal Deformities

Affiliated by the Tamil Nadu Dr. M. G. R. Medical University, Chennai.

Saravanampatti Post, Coimbatore – 641 035, T.N A 15-year-old female with scoliosis is referred for physiotherapy. Priya must decide on an appropriate intervention plan.

Challenge: How should Priya address the scoliosis?

#### Possible Solutions:

- 1. Assess the degree of curvature using a scoliometer.
- 2. Recommend bracing if curvature is moderate (e.g., 20-40 degrees).
- 3. Initiate Schroth exercises for scoliosis-specific therapy.
- 4. Refer to an orthopedic specialist for surgical evaluation if severe.

# O. Poliomyelitis

A 20-year-old male with residual polio paralysis seeks physiotherapy for leg weakness. Priya must plan a rehabilitation strategy.

Challenge: How should Priya manage residual paralysis?

## **Possible Solutions:**

- 1. Assess muscle strength and functional limitations.
- 2. Recommend strengthening exercises for unaffected muscles.

# Affiliated by the Tamil Nadu Dr. M. G. R. Medical University, Chennai.

Saravanampatti Post, Coimbatore – 641 035, T.N

- 3. Suggest orthotic support to improve mobility.
- 4. Discuss tendon transfer options with the orthopedic team.

# P. Congenital Deformities

A 5-year-old child with clubfoot (CTEV) is referred post-casting. Priya must plan maintenance therapy.

Challenge: How should Priya manage the clubfoot?

#### Possible Solutions:

- 1. Continue Ponseti method with bracing (e.g., Denis Browne splint).
- 2. Teach parents stretching exercises to maintain correction.
- 3. Monitor for relapse and refer to a pediatric orthopedist if needed.
- 4. Document progress with serial measurements.