

Case Study: Progressive Knee Pain

PATIENT PROFILE

- Female, 48 years ,Height: 5'2" (157cm), Weight: 12 stone (76kg), BMI: 30.9, Occupation: Supermarket cashier, Social: Married, 3 grown children, Lifestyle: Smoker (5-10/day), Alcohol 14 units/week

PRESENTING COMPLAINT (Pain Characteristics)

- P1: Intermittent deep ache (3-5/10)
- P2: Occasional 'knife in joint' twinge (7/10)
- Duration: 4-month history, Pattern: Progressive worsening , Location: Right knee

Modifying Factors: Walking (4-5 mins), Position changes, Sock wearing, Full knee extension **Easing:** Rest, Neoprene support

FUNCTIONAL IMPACT

- Walking limited to 10-15 minutes, Morning stiffness (15-20 minutes), Sleep unaffected (one pillow support), activity due to fear
- Uses elbow crutch (incorrectly)

MEDICAL HISTORY

- PMH: None significant
- FH: Mother with arthritic back
- Medications: None
- Previous GP Assessment: "Wear & tear"

PHYSICAL EXAMINATION

- Obese presentation
- Knee partially flexed
- Knee sleeve present
- Single elbow crutch use
- Soft tissue excess masks swelling

Objective Findings

ROM Assessment

- R Knee AROM: Flexion & Extension 80% (P1 limited)
- PROM: Extension to neutral (hard end feel)
- Lumbar/Hip ROM: NAD in sitting

Special Tests & Function

- McMurray's: Unable to assess
- PFJ: NAD
- Muscle strength: Grade 5 quads/hams
- Single leg balance: <2 seconds
- Gait: Shortened R stance phase, 30° flexion

Palpation

- Warm knee with mild swelling
- Patella 'clunk' present
- Diffuse medial knee hyperalgesia
- No focal joint line tenderness

DIAGNOSTIC CONSIDERATIONS

PRIMARY DIAGNOSIS

- Suspected early osteoarthritic changes • Progressive nature of symptoms • Movement pattern consistent with OA • Multiple risk factors present • Age-appropriate presentation

CONTRIBUTING FACTORS

1. Physical Factors
 - BMI >30 (Obesity Class I)
 - Sedentary lifestyle
 - Poor movement patterns
 - Reduced functional capacity
2. Behavioral Factors
 - Fear avoidance behavior
 - Activity reduction
 - Limited exercise engagement
 - Smoking status
3. Psychosocial Elements
 - Anxiety about condition progression
 - Concerns about needing joint replacement
 - Social impact on work and family roles

MANAGEMENT PRIORITIES

1. Immediate Interventions
 - Education about condition
 - Activity modification guidance
 - Gait re-education
 - Pain management strategies
2. Medium-Term Goals
 - Weight management program
 - Graduated exercise prescription
 - Lifestyle modification support
 - Smoking cessation advice
3. Long-Term Considerations
 - Prevention of contralateral knee involvement
 - Maintenance of functional independence
 - Occupational sustainability
 - General health improvement

Note: Management approach needs to address both physical and lifestyle factors with emphasis on patient education and self-management strategies