Session 5A
September 15th or September 17th

Shoulder Pain Case
Touch Workshop/ Upper Extremity Examination

Mosby’s Guide to Physical Diagnosis- Chapter on Upper Extremity

Complete module: Principles of Musculoskeletal Exam and the Upper Extremity Examination (available on the course web-site)

Prepare by: Wearing clothing for examining each others’ shoulders and upper extremities (tank tops, loose T-shirt)
Someone should bring anatomy text and atlas. It will be helpful!

Submitting your patient write up from your hospital interview last week

Brief Outline:

Section 1: Touch base (15 minutes)
Section 2: Presentation of learning objectives (30 minutes)
Section 3: Case discussion: A patient with shoulder pain (40 minutes)
Section 4: Touch workshop and upper extremity examination (90 minutes)
Section 5: Evaluate session (5 minutes)
Objectives for Session 5A:

By the end of this session, students will be able to:

• Begin to develop an approach to analyzing a clinical case.
• Apply knowledge of shoulder anatomy to the clinical discussion
• Discuss the role of touch in physician-patient interactions
• Approach a patient from a different culture about issues related to the physical examination
• Demonstrate the components of the upper extremity examination

Section 1:  Touch Base (15 minutes)

Section 2:  Present learning objectives (30 minutes)

Students should present findings from the research of their learning objectives chosen last week. Each presentation should be no more than 5 minutes and should include a brief discussion on the resources used.

Section 3:  Case discussion: A Patient with Shoulder Pain (40 minutes)

Logistics:

1. One student should read the medical history. Stop and discuss. Then read the physical exam. Continue discussion.

2. One student– the scribe – will take notes on the board. Findings or questions should be written in the following columns:

   • History
   • Physical findings
   • Anatomy
   • Issues (physician, patient, ethical)
   • Diagnostic possibilities
   • Laboratory and test findings, if any
Case Summary: A Patient with Shoulder Pain

Chief Complaint: Right Shoulder pain since yesterday

HPI: Ms XY, a 35 year old woman comes to see you in clinic. She reports that she slipped and fell down the stairs yesterday and landed on her right shoulder. She initially had severe sharp pain in her shoulder and has not been able to move it due to the pain. She took some Advil which helped the pain a little. The pain is now aching, 8/10 in severity, radiating half way down her arm, worse when attempting to use the arm and worse when lying on the right side at night.

She is a cashier in a retail store and is concerned that she will have great difficulty in performing her duties. Her supervisor advised her to see a doctor. She is divorced and has 2 young children (4yrs and 2yrs)

Begin Discussion

What structures could be affected by this injury?

What might you expect to see on physical exam?

What effects might this injury have on this person’s quality of life?
Physical examination:

The primary care physician tells you (the medical student) to go into the room and examine the patient. You notice she is holding her right arm close to her body. Her shoulders are asymmetric: her right shoulder has an indentation (hollow) in the otherwise round contour. She is unable to move her right shoulder because of pain and you are unable to test for passive range of motion and muscle strength in the proximal (upper) arm muscles also because of the pain. There is tenderness of the anterior and lateral aspects of her shoulder on palpation. Examination of her left shoulder, elbow, wrist joints and distal arm muscle strength were normal.

A few suggested questions:

1. What could these physical findings mean?

2. What could have happened to her shoulder? Think of the specific bones, joints, ligaments and muscles that might have been injured.

3. How might you be able to find out what is the matter?

4. How might this injury affect her?

5. After you finish examining the patient, she asks you what you think is wrong. As a student what would you say?

6. Her supervisor calls you to ask about the nature of her injury: what would you tell him?

SECTION 4: TOUCH WORKSHOP AND UPPER EXTREMITY EXAMINATION
(90 minutes)

1. Touch workshop:

In examining the upper extremity, you will be touching each other in a medical context. Before doing this, take a few minutes to discuss touch.

Long before physicians and modern medicine, touch has been associated with healing. It can be a literal way to make contact and express caring, as well as one of a physician’s tools to diagnose disease.
Touch also has different meanings in different cultures. For example: some of you may feel uncomfortable, for cultural or personal reasons, being touched by someone of opposite (or the same) gender. If so, tell your mentors!

Some things you may want to discuss before you touch each other:

1. What is your own reaction to touch by a stranger? By a friend? By a doctor?
2. How do your family background, cultural context and individual personality contribute to your reaction to touch?
3. What potential issues might arise during examination of an individual from another culture? How should this be approached?
4. How do you feel about touching others when you are the examiner? Do particular situations make you more or less uncomfortable?
5. As you are examined during this session: how do you feel? Why?

EXTREMITY EXAMINATION

Review the following characteristics assessed during a musculoskeletal exam:

- range of motion
- signs of inflammation (redness, warmth, swelling, pain)
- crepitus
- deformities
- condition of surrounding tissues
- muscular strength
- symmetry

Review the techniques used to evaluate the joints and surrounding soft tissues:

- inspection
- active range of motion
- palpation
- passive range of motion
- strength testing
- special maneuvers

UPPER EXTREMITY EXAMINATION:

This will include: inspection, range of motion, palpation, and strength, as well as a few special tests.

Please use the objective skills clinical examination (OSCE) form for upper extremity as a guide (available at the end of this session and on the POM-1 website)
1. The **shoulder**:
   - **inspect** for symmetry, deformity and discoloration
   - **do range of motion**: abduction, adduction, flexion, extension, internal rotation, external rotation
   - **palpate** surface landmarks: the scapular spine, acromion, acromioclavicular joint, clavicle and bicipital groove
   - **assess strength**: ask patient to shrug shoulders, flex shoulder and abduct shoulder against your resistance.

2. The **elbow**:
   - **inspect** for symmetry, deformity and discoloration
   - **do range of motion**: flexion, extension, pronation, supination
   - **palpate** for swelling or tenderness; palpate for crepitus during motion
   - **assess strength**: have patient flex and extend elbow against resistance
   - **Maneuvers of the elbow**: palpate for tenderness at the lateral epicondyle (a sign of lateral epicondylitis – “tennis elbow”) and medial epicondyle.

3. The **wrist and hand**:
   - **inspect** for symmetry, deformity and discoloration; assess thenar and hypothenar eminence
   - **do range of motion**: flexion, extension, flexion toward the ulna and toward the radius, flexion and extension at metacarpophalangeal (MCP) joints, and make a fist
   - **palpate** wrist, carpometacarpal (CMC), MCP and proximal interphalangeal (PIP) joints for swelling or tenderness
   - **assess strength**: have patient flex and extend wrist against resistance, grip your fingers, abduct fingers and hold together thumb and small finger (opposition) against resistance
   - **Special maneuvers of the wrist (optional)**:
     - **Tinel’s sign**: tap on the palmar side of the wrist; in carpal tunnel syndrome, this elicits pain and tingling into the hand
     - **Phalen’s sign**: patient holds wrist flexed at 90 degrees for one minute. In carpal tunnel syndrome, this causes pain and tingling in the hand

**SECTION 5: Evaluate Session** (5 minutes)

Continue the touch discussion. What was it like examining a classmate? Being examined by a classmate? How will examining a patient be different?
### Upper Extremity

<table>
<thead>
<tr>
<th>Procedure</th>
<th>A = Attempted Satisfactory</th>
<th>B = Attempted Below Satisfactory</th>
<th>C = Did Not Attempt</th>
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<tbody>
<tr>
<td><strong>Comments</strong></td>
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<tr>
<td><strong>1.</strong> SHOULDER Inspection: Assess symmetry, deformity and discoloration. (Ex should state what they are inspecting for)</td>
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<td><strong>2.</strong> SHOULDER Palpation: Ex. Palpates scapular spine, acromion process, acromioclavicular joint and bicipital groove (one side OK).</td>
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<td><strong>3.</strong> SHOULDER Range of motion: Examiner asks patient to flex, extend, abduct (full arc), internally rotate (elbow flexed, thumb at opposite scapula) and externally rotate (elbow flexed, hands out at sides or behind head) both shoulders.</td>
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<td><strong>4.</strong> SHOULDER Strength: Ex resists patient while patient shrugs shoulders, flexes shoulder forward and abducts shoulder.</td>
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<td><strong>5.</strong> ELBOW Inspection: Assess symmetry, deformity and discoloration. (Ex should state what they are inspecting for)</td>
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<td><strong>6.</strong> ELBOW Palpation: Ex. Palpates lateral epicondyle, medial epicondyle and olecranon process (one side OK).</td>
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<td><strong>7.</strong> ELBOW Range of motion: Pt. flexes, extends, pronates, (elbow at 90, palm down) and supinates (elbow at 90, palm up) both elbows.</td>
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<td><strong>8.</strong> ELBOW Strength: Examiner resists patient while patient flexes and extends elbow.</td>
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<td><strong>9.</strong> WRIST and HAND Inspection: Assess symmetry, deformity and discoloration. Assess thenar and hypothenar eminence. (Ex should state what they are inspecting for)</td>
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<td><strong>10.</strong> WRIST and HAND Palpation: Examiner palpates wrist, CMC, MCP and PIP joints.</td>
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<td><strong>11.</strong> WRIST and HAND Range of motion: Pt flexes and extends wrist. Pt moves hand to ulnar and radial sides. Patient flexes and extends fingers at MCP joint with fingers straight, and makes fist.</td>
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<td><strong>12.</strong> WRIST and HAND Strength: Examiner resists patient while patient flexes and extends wrist, assesses grip strength, resists finger abduction, and resists opposition of thumb and small finger.</td>
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