



# COMLEX Level 2 PE Exam

A 34 years old woman came to clinic with unbearable pain in her right wrist.

# Patient Data Sheet

- Patient Name : Mrs. Hathaway
- Clinical Settings : Family Medicine Office
- CC : A 34 years old female presents with unbearable pain in her right wrist.

## **Vital Signs:**

- Blood Pressure : 130/80 mm Hg
- Respirations : 12 per minute
- Temperature : 96.2 °F
- Pulse : 68 bpm
- Height : 65 inches
- Weight : 170 lbs.
- BMI : 28.3 kg/m<sup>2</sup>





# Differential Diagnoses

## Purely orthopedic etiology:

- Fracture of wrist bone(s) e.g. Scaphoid.
- Perilunate dislocation.
- Sprain of wrist ligament(s).
- Distal radius fracture.
- Arthritis of the base of thumb from repetitive use / old fracture site.



# Differential Diagnoses

- Medical etiology:
- Carpal tunnel syndrome—various causes
- Dorsal ganglion
- De Quervain's tenosynovitis
- Rheumatoid arthritis
- Osteoarthritis
- Psoriatic arthritis
- Gout
- Pseudogout





# Key Points to Remember

- Door information.
- Patient's age and sex, in a middle aged woman, Carpal tunnel syndrome, De Quervain's, Rheumatoid etc. are more common. In a younger man with outdoor activities, sports injuries and ortho causes are more common.
- Differential diagnoses must be prioritized according to patient's age and sex.



# Opening Scenario



- An overweight white female sitting up in the chair, appears to be in some pain. Supporting her right wrist with her left hand, right wrist is held in slight dorsiflexion.
- Remember DO NOT SHAKE HANDS WITH THIS PATIENT! She is already in pain, you don't want to make it worse!!!!



# Subjective



- **Hello Mrs. Hathaway, my name is Dr. Cetani. I am a physician in this hospital and will take care of you today. What brings you to the office?**
- *Hi doctor. Its my right wrist.*
- **I see. You seem to be in pain.**
- *Yes doc.*
- **Okay I will make this as quick as I can and get you some pain meds soon.**
- *Thank you doctor.*

## Subjective (Contd...)

- **So, Mrs. Hathaway, how long have you had this wrist pain ?**
- *Its been going on for a good two weeks now doc.*
- **I see. Has it always been this bad ?**
- *No doc, usually I can bear it. Sometimes its bad and I take a couple of Tylenols and get on with my work. Today its very bad.*





## Subjective (Contd...)



- **I am sorry to hear that. How bad is it usually, on a scale of 1-10 , with 10 being the worst?**
- *Its usually 3 or 4 doc, I have become used to it, so even with a 2 or 3 I keep doing my work.*
- **I see. And how bad would you say it is right now?**
- *It was an 8 when it started, I took some Tylenol, now it's 6.*

## Subjective (Contd...)



- **I see. I will try to be as quick as I can, and get you something for your pain.**
- *Sure doc, you have to do what you have to do.*
- **Okay so what were you doing when this pain started?**
- *I was in my office, working.*
- **What kind of work do you do ?**
- *I am a secretary, I was working on my computer.*



## Subjective (Contd...)

- **I see. And does working on the computer make your pain worse?**
- *Yes doc, it does. I think that's the culprit. I had a lot of data entry job today. Besides I have been stressed out lately.*
- **I am sorry to hear that. Is there anything apart from Tylenols that makes your pain go away?**
- *Well I tried one of those ace wraps when I got back from work one day, and it helped a lot. Hot baths also help.*



## Subjective (Contd...)



- **I see. Does this pain stay in your wrist or does it move anywhere ?**
- *No doc, its just my wrist, sometimes its my thumb. But other than that it doesn't move.*
- **Okay. Does your left wrist also hurt ?**
- *Sometimes, but its much less.*
- **Okay do any other joints in your body hurt?**
- *No doc.*



## Subjective (Contd...)

- **Okay. Have you recently injured your wrist or fallen on an outstretched hand ?**
- *No doc.*
- **Okay. Do you feel stiff when you wake up in the morning ?**
- *Not really doc.*
- **Does it take a while for you to get started, especially this wrist in the morning?**
- *Sometimes doc.*



## Subjective (Contd...)

- **Have you had any pain in other joints like knees, smaller joints of fingers, foot, toes ?**
- *No doc.*
- **Have you gained weight unusually recently?**
- *I think so doc, I was 160 pounds at my last visit, this time I am 170. its just been 2 months. My diet hasn't changed a whole lot.*





## Subjective (Contd...)

- **I see. Do you feel cold when others don't?**
- *Sometimes doc.*
- **How does your skin feel ?**
- *It feels normal.*
- **Okay. How about your appetite ?**
- *It is normal too.*
- **Can you work at the same pace as before?**
- *Yes doc.*



# PAM HUGS FOSS

- **Okay, Mrs. Hathaway. I will now ask you questions related to your medical problems, medications and habits. Is that ok ?**
- *Yes doc.*
- **Do you have any medical problems ?**
- *I have depression, I am overweight, I snore at night.*

Contd...





## PAM HUGS FOSS (Contd...)

- **Do you take any medications ?**
- *I take a medicine for depression. I am trying to lose weight, I wish there were some medication for that. For snoring, I have to see a sleep doctor sometime next month. I pop Tylenols for the pain.*
- **Okay. Are you allergic to any medication or other substance?**
- *None that I know of .*



## PAM HUGS FOSS (Contd...)

- **Have you been hospitalized in the past?**
- *Only for my delivery 2 yrs ago.*
- **Was it a normal delivery ?**
- *Yes doc, it was absolutely normal. My son James was 8 pounds at birth, he is a healthy child.*
- **I see. Did you gain a lot of weight during pregnancy?**
- *No doc. All was smooth during and after my pregnancy.*





## PAM HUGS FOSS (Contd...)

- **I see. Have you had any surgeries in the past?**
- *None doc.*
- **How are your periods ?**
- *I get them every 28-30 days. After James was born, I feel I bleed less.*
- **I see. Do you have any pain or other complains during periods ?**
- *None.*



## PAM HUGS FOSS (Contd...)

- **How are your bowel movements?**
- *They are fine doc.*
- **How about your bladder ?**
- *No problems with it doc.*
- **Okay. Is there any history of medical problems in your family ?**
- *None that I know of.*
- **Has anyone in your family been diagnosed with thyroid disease?**
- *I don't know that doc.*





## PAM HUGS FOSS (Contd...)



- **Okay. Now let me ask you about your habits.**
- **Do you smoke ?**
- *I gave up when I conceived my son. I smoked about half a pack a day before that for 10 years.*
- **Do you drink alcohol?**
- *Only socially doc.*
- **Do you use recreational drugs?**
- *None doc.*

## PAM HUGS FOSS (Contd...)

- **Okay good. I will ask you some personal information now. Be assured it is confidential.**
- *Okay doc.*
- **Are you sexually active?**
- *Yes doc, with my husband.*
- **Do you use any form of contraception ?**
- *We use protection doc.*
- **Okay.**





# Physical Examination

- **Thank you for your cooperation Mrs. Hathaway. I will now wash my hands and examine you. Then we will talk about my impressions.**
- *Sure doc.*
- Wash your hands.
- Drape the patient.
- Do good general, HEENT exam.
- Look for signs of hypothyroidism: e.g. Enlarged thyroid gland, dry warty skin, pretibial non pitting edema, thick fissured tongue.
- Examine the wrist, don't repeat painful maneuvers.
- Explains, offers and performs OMM if indicated.



# Osteopathic Musculoskeletal Examination

**1. Inspection:** any skin changes, swelling

**2. Range of Motions:** Active range of motions of bilateral involved joint and passive range of motions if limitation to active range of motion detected

**3. Palpation:**

- i. Any tenderness, tissue texture changes
- ii. Chapman points, viscerosomatic reflexes
- iii. Somatic dysfunction





# Closure: Assessment and Plan discussion



- **Thank you Mrs. Hathaway. Let me go over my impressions of your problem now.**
- **Mrs. Hathaway, as the most common cause of any joint pain, we like to exclude orthopedic causes. That is any kind of injury to bone, surrounding structures, ligaments etc. in the area.**
- **You denied any trauma to your wrist recently. I would still want to rule out the possibility of strain that is tearing of a ligament.**

## Closure: Assessment and Plan discussion (Contd...)

- **Since you work a lot on the computer , there might have been overuse injury to a bone or other structures, which we call stress fractures.**
- **They may not be clinically as evident as other fractures. I would like to consider that as a possibility too.**
- **Other than that, there are a couple of medical causes that I would like to consider.**





## Closure: Assessment and Plan discussion (Contd...)

- **You have gained nearly 10 pounds in 2 months, which is a significant weight gain. You also said that you feel depressed. You also feel cold when others don't, sometimes.**
- **All these may point to a thyroid disease we call hypothyroidism.**
- **People with hypothyroidism can have all of that. And since they gain weight, the fat compresses a nerve in your wrist. There's a nerve which passes under a bony tunnel in the wrist. If soft tissues are stretched by weight gain, it can put pressure on the nerve and that can present as wrist pain. We call this carpal tunnel syndrome.**



## Closure: Assessment and Plan discussion (Contd...)

- **Now of course, there can be other causes of carpal tunnel syndrome, that is the nerve getting compressed. But given your history, age and other features, I would suspect hypothyroidism.**
- *I see doctor. What other causes can be there ?*
- **There are a number of medical diseases which affect joints, Mrs. Hathaway.**





## Closure: Assessment and Plan discussion (Contd...)

- **We call them the arthritides. You must have heard some names like rheumatoid arthritis, osteoarthritis, gout etc. they don't seem to be very likely in your case, but I would still run a couple of tests to be sure.**
- *I see. So what kind of tests will we need doc.*
- **We need some basic blood tests. We can have the blood drawn today itself. I will call you with the results, which should come by tomorrow.**<sup>29</sup>



## Closure: Assessment and Plan discussion (Contd...)

- **I would also request for an X-ray of the wrist to rule out any minor injury, fracture, etc.**
- *Okay doc. But what about my pain ?*
- **Of course, Mrs. Hathaway. That is our first priority. I will give you some pain medications for now. They should help take care of your pain.**
- **We will also show you how to tie your ace wrap at night and how to position and support your hand so you have minimal or no pain.**





## Closure: Assessment and Plan discussion (Contd...)

- *That would be great doc.*
- **I will prescribe a wrist splint, which is like a bandage which supports your wrist. I would advise you to wear it at night. It will really help take care of your pain.**
- *I see. So doc, what about those tests ?*
- **Yes once I have the results, I will call you. We will go over all results and their meanings.**



## Closure: Assessment and Plan discussion (Contd...)

- **At that time I will be in a better position to tell you what exactly is the cause of your wrist pain. Then we will discuss what the further treatment options are. I would also like to see you in a week to see how you are doing. Does that sound right?**
- *Yes I think so doc.*
- **Can I answer any other questions at this time Mrs. Hathaway?**
- *No doc I think I am good.*





## Closure: Assessment and Plan discussion (Contd...)

- **Great. It was nice to meet you. I hope you will feel better with the medications and the splint I will prescribe now.**
- **We will meet again with the results. Until then take care of yourself.**
- *Thank you doc.*
- **DON'T SHAKE HANDS! Just put your hand on their shoulder, reassure say thanks and exit.**



# Assessment and Plan

- **Assessment:**

1. Carpal tunnel syndrome.
2. Stress fracture.
3. Wrist ligament sprain.
4. Overuse arthritis of base of thumb (referred pain).

- **Plan:**

1. Ibuprofen 400 mg PO every 6 hours PRN for pain, RICE, Wrist Splint
2. Perform OMM if indicated (no HVLA)
3. CBC with differential, BMP, S. RA factor, S. TSH, ANA Panel , ESR
4. X-ray wrist 3 views + soft tissue
5. Follow up in a week and patient education and counseling







# Happy Reading