If only I would have known...
(Or listened!)
5 Things I Learned in MSK
(the Hard Way!)

Kelley W. Marshall, MD
So a funny thing happened on the way to this podium-

- Wait? When did I become a master?
  - Am I really that old?
- A national talk where I get to choose what I want to say?
  - Oh, that did NOT go well the first time...
Let me take you back 20+ years

FEAR, UNCERTAINTY AND DOUBT
Job market

Relative Attractiveness of Diagnostic Radiology: Assessment with Data from the National Residency Matching Program and Comparison with the Strength of the Job Market

Kert Anzilotti, MD
Daniel S. Kamin, MD
Jonathan H. Sunshine, PhD
Howard Paul Forman, MD, MBA

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Radiology and radiologists
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Figure 1. Graph shows HWP data plotted monthly from 1991 to 1999.

Figure 3. Graph shows the total radiology positions offered (including postgraduate years 1 and 2) through the National Residency Matching Program from 1990 to 2000.
1996... AUR/APDR/A³CR² MTG
Washington DC
The result:
Lesson 1: HUMILITY

“Dr. Sture Sigfred: ‘You’ll never be as smart as you are on the day you sit for your oral boards.’

Me Now: ‘If only I would have been wise’
Lesson 1b: Respect your elders and say thank you.
Lesson 2: We are in the SERVICE industry
Lesson 2b: Build relationships with your customers

- KNOW your referring orthopedic, sports medicine and rheumatology colleagues.
- Offer to do combined conferences
- Be available for consults by phone
- Have access to their in-office PACS
- Go to THEIR meetings (POSNA)
- Speak their language
- Know what question(s) he/she is trying to answer with our imaging exam
- Answer those questions in your report
- Humility: Ask for feedback
- Be a radiologist of “Yes, How can I help?”
In Short: To be an indispensable part of the team, you have to show up in the huddle.
“Why is it so hard to distinguish acute ACL from transient patellar dislocation?”

Radiologist perspective vs. orthopedist perspective

How can we help stratify when the kid comes into the ER/UC?
Trochlear Bump

>3mm ABNL
Convex

Crossing sign

Double contour
### Patellar instability

<table>
<thead>
<tr>
<th>Major Instability Factors</th>
<th>Minor Instability Factors</th>
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<tr>
<td>Trochlear Dysplasia</td>
<td>Excessive external femoral rotation</td>
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<td>TT-TG</td>
<td>Genu recurvatum</td>
</tr>
<tr>
<td>Patellar tilt</td>
<td>Genu valgum</td>
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**MPFL Rupture**

MRI Pelvis w/o Contrast LTD: Rotational Profile
D. DeJour
Classification of Trochlear Dysplasia

Dysplasia Type A
- Shallow trochlea > 145°

Dysplasia Type B
- Supra trochlear spur
- Flat trochlea

Dysplasia Type C
- Double contour
- Lateral convexity
- Medial hypoplasia

Dysplasia Type D
- Double contour
- Small medial facet
Quality matters, missed opportunities
Lesson 4: Stay Current *(Relatively)*

- Knowledge is exploding
  - I can’t keep up!
- Clinicians will come into the reading room in search of someone to partner with in answering a new question
- Seize those opportunities!
  - Teach me
  - Research/Read
  - Lifelong Learning
14 yo male with right hip pain
Acetabular Side Causes
- Pincer Type
- Acetabular retroversion
- Coxa Profunda

Femoral Side Causes
- Cam Type
- Most=Mixed Type
Proper Imaging Technique Is Key

- Good AP Pelvis Radiograph
  - Centered over central pelvis
    - not hip
  - Pelvis neutral incline
    - no rotation, no tilt
  - Sacrococcygeal jcn to superior symphysis pubis distance 3.2-4.7 cm
Quality Check
Assessing Acetabular Version and Depth
Crossover sign
Posterior Wall Sign

Coxa Profunda-line moves lateral

Acetabular Retroversion-line moves medial
Ischial Spine Sign - Acetabular Retroversion
Pistol Grip Deformity
Horizontal growth plate sign
Lateral displacement of physeal scar
Femoral Bump
Lesson 5: Don’t be so easily misled!

- Histories are great for protocolling MRs but forget about them after that!
Collegiate softball pitcher with hip pain
12 year old runner with leg pain
Persistent pain after pinning for stress fracture... “Would you mind looking at the outside MRI?”
15 y.o. elite ballet dancer with left hip pain
2 months
So as I look forward to the next 10 years ahead...

I have no special talent. I am only passionately curious.

ALBERT EINSTEIN

Relevance. Stay current in the field.

Make the time

Don’t be misled by History, or any other unreliable source.

Will Rogers