

How to Write a Case Report (or a Photo Quiz) (or a Poster)

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With thanks to Anna Rutherford, Jules Seales and John Koch for their
tireless efforts to improve this talk over the years

DISCLOSURES

- The views expressed in this presentation are those of the authors and do not necessarily reflect the official policy or position of the Department of the Navy, Department of Defense, or U.S. Government.
- We references this book:

Rutherford AL, Lennon RP, Seehusen DA et al. *The Recipe: A practical guide to scholarly activity*. Jacksonville, FL: Author; 2019. ISBN: 9781096033004 / 1096033003

As of 30 hours ago, it is technically for sale (all proceeds to the Henry M Jackson Foundation), but it is public domain → it has been and will continue to be free to access, download, print, use, modify, or used as kindling on your STFM mobile app or online at:

<https://www.usafp.org/research/wp-content/uploads/2018/12/the-recipe-2018.pdf>

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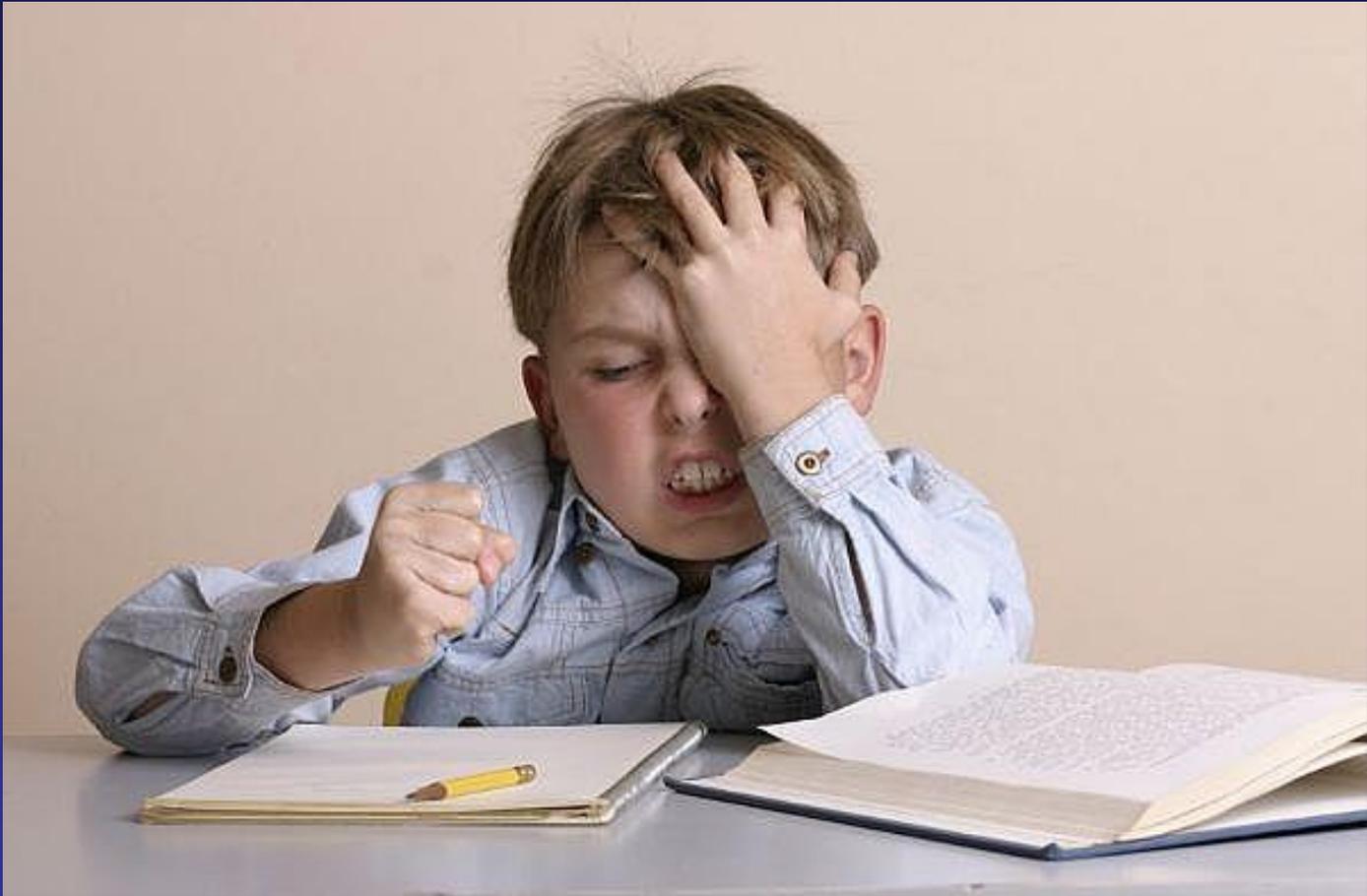
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Why Do Research?



An Introduction to
Case Report Workshop

Why Do Research?

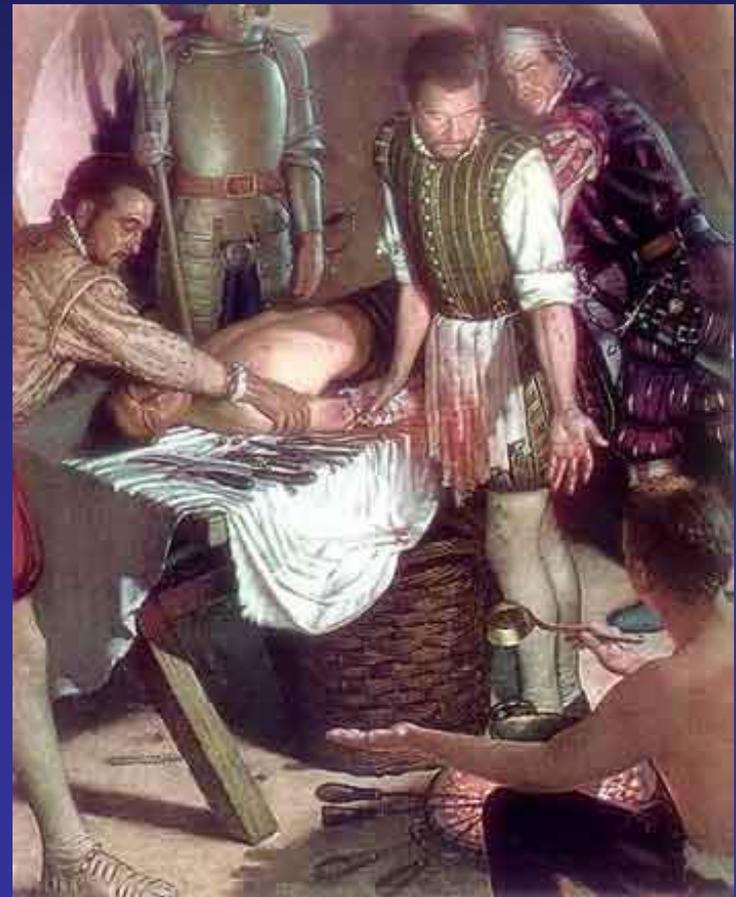


"HOW WOULD YOU RATE THIS MUGGING,
ON A SCALE FROM ONE TO TEN?"

Why Do Research?

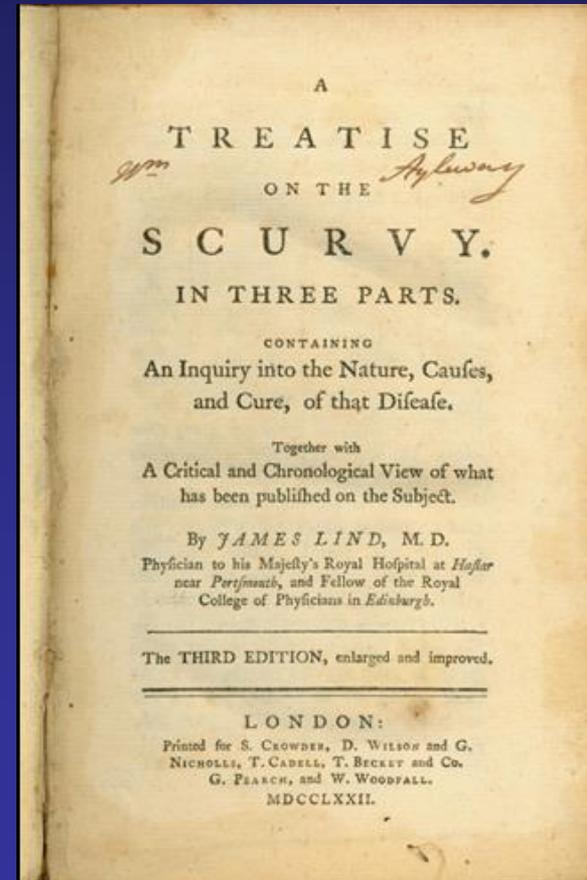


In the beginning...





200 Years Later...



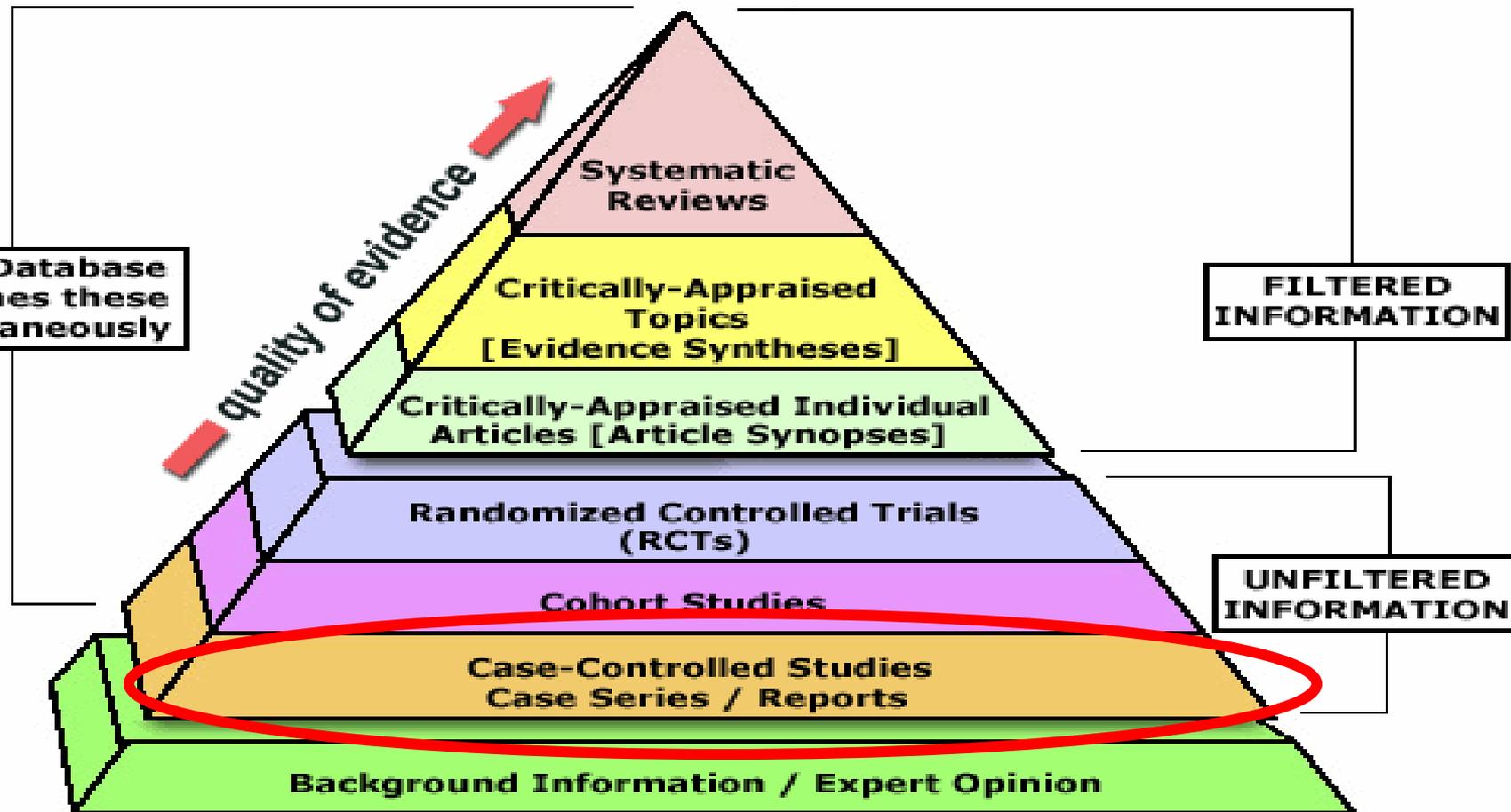
Research Motivators



Where do I start?

- IRB Approved Study
- QI Project
- Clinical Review
- Book Chapter
- Poster Presentations
- Case Reports
- Photo Quiz
- Letter to the Editor
- Lay Publications





TRIP Database searches these simultaneously

quality of evidence ↑

FILTERED INFORMATION

UNFILTERED INFORMATION

Case-Controlled Studies
Case Series / Reports

Background Information / Expert Opinion

Systematic Reviews

Critically-Appraised Topics
[Evidence Syntheses]

Critically-Appraised Individual Articles
[Article Synopses]

Randomized Controlled Trials
(RCTs)

Cohort Studies

KAPOSI'S SARCOMA IN HOMOSEXUAL MEN—A REPORT OF EIGHT CASES

KENNETH B. HYMES
JEFFREY B. GREENE
AARON MARCUS
DANIEL C. WILLIAM

TONY CHEUNG
NEIL S. PROSE
HAROLD BALLARD
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Summary The clinical findings in eight young homosexual men in New York with Kaposi's sarcoma showed some unusual features. Unlike the form usually seen in North America and Europe, it affected younger men (4th decade rather than 7th decade); the skin lesions were generalised rather than being predominantly in the lower limbs, and the disease was more aggressive (survival of less than 20 months rather than 8–13 years). All eight had had a variety of sexually transmitted diseases. All those tested for cytomegalovirus antibodies and hepatitis B surface antigen or anti-hepatitis B antibody gave positive results. This unusual occurrence of Kaposi's sarcoma in a population much exposed to sexually transmissible diseases suggests that

were measured by the complement fixation technique in the New York City Health Department Laboratories.

Clinical Observations

All eight patients with Kaposi's sarcoma reported in this study were homosexual men aged 27–45 years and had multiple sexual partners. All had histories of a variety of sexually transmitted diseases including syphilis, gonorrhoea, viral hepatitis, amoebiasis, *Herpes progeneralis* infection, and condyloma acuminatum. Four of the eight patients were Jewish and one was Italian. The only Black patient in our study was born in America and had never been to Africa. The accompanying table summarises some of the clinical features.

Seven of the eight patients sought medical attention because of skin lesions. The eighth (case 8) presented with *Pneumocystis carinii* pneumonia, and the skin lesions were detected at the first physical examination. In all patients the skin lesions appeared gradually. In six, the skin lesions were numerous when first seen. Case 8 had two discrete lesions on admission but more than twenty new lesions developed during his 3 months in hospital. The skin lesions consisted of nodules and papules in seven patients, and of plaques in case 8. All the skin tumours were non-tender, purplish, and non-ulcerating, and ranged in size from several millimetres to several centimetres in diameter. In several patients the lesions

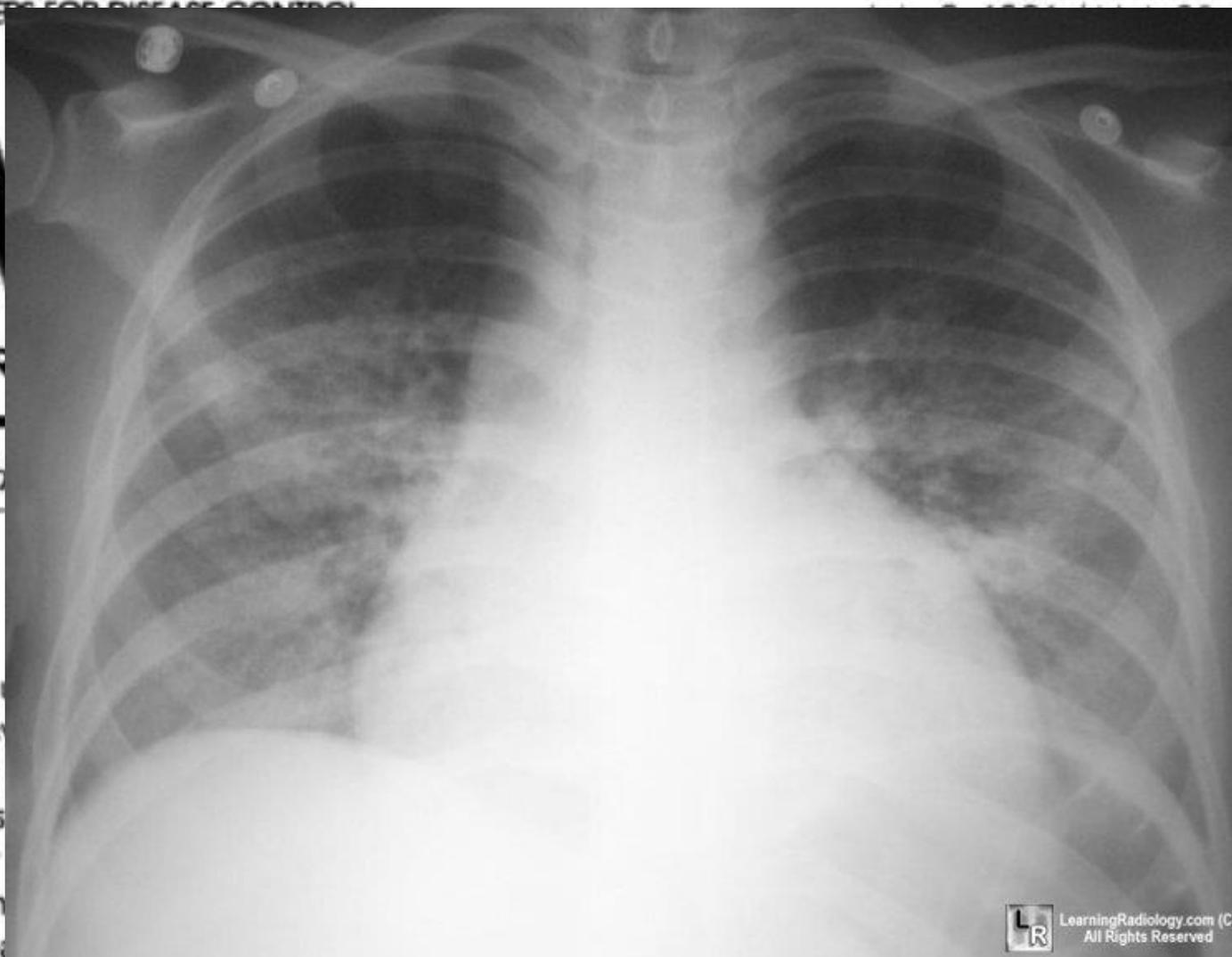
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Why ^{NOT} Do Research?!



Case report vs. Photo Quiz vs. Poster

CASE REPORT 	PHOTO QUIZ 	POSTER
Title	Title	Title
Authors	Authors	Authors
Introduction	HPI	Introduction
Case Report	Question	Case Report
Discussion	Discussion	Images
Scholarly question(s)	Summary Table	Discussion
Conclusion	References	Scholarly question(s)
References		Conclusion
		References

The Recipe: a practical guide to scholarly activity:

<https://www.usafp.org/research/wp-content/uploads/2018/12/the-recipe-2018.pdf>

What makes a case
worthy of reporting?

Definitely...

- Changes the course of medical science
- Illustrates a new principle
- Supports or refutes a current theory
- Affects specific patient population(s)!

From time to time we get lucky enough to see these, not every day, but keep your eyes open!

And of course...

- Presents a previously misunderstood condition or response
- Unreported adverse response to drug therapies
- Unrecognized cause-and-effect presentations

You very will likely see AT LEAST one of these during your residency

Don't Forget: Touch-Feely Stuff

- An event that had a significant impact on patient, physician, or both.
- A case that causes a physician to reevaluate how he /she cared for patients
- A case that suggests opportunities for patient education

... every time you are on the wards

Really: Anything Sufficiently Interesting

- An unusual series of events that caused confusion or treatment dilemmas
- New observation of the impact of one disease process on another
- A treatment for one condition that results in an unexpected outcome for a different condition
- Any case you can't wait to tell your friends/family/colleagues about

Where do I find these Cases?

- While you are on inpatient/on call
- Working the labor deck
- In clinic
- Working in the ED
- From a senior/attending
- From specialists (who have these cases, but lack the passion to pursue publishing them!)

- Not every case needs to shatter the world
- We are engaged in medical story telling, communicating your experience and lessons to the community to better the whole
- **DON'T ASSUME** that because you saw it everyone knows it
 - You have a unique set of knowledge and experience and (from time to time) the world should get to hear your perspective

Title

Clear and concise!

**A POSTURAL HEADACHE AND DIPLOPIA
IN A POSTPARTUM WOMAN**



MAKE IT RELEVANT TO YOUR AUDIENCE!!

**CHRONIC ANTERIOR KNEE PAIN AFTER
MILD TRAUMA IN A SEDENTARY ADOLESCENT**



(Does not give away the answer for a photo quiz)

Examples of catchy case report titles

All of these were accepted to regional conferences

- I See Campylobacter, What do UC?
- Get Some Skin in the Oil Game (Essential Oil Use)
- To Catch a Cancer
- A Strange Case Of the Blues (Serotonin Syndrome)
- Was the Juice Worth the Squeeze?
- Nuts! I have EOE

Your turn!

Take 4 minutes to write your:

Title: 5-15 words

CLEAR, CONCISE, RELEVANT



Introduction

no need in Photo Quiz because questions will prompt reader in desired direction

A postural headache is pathognomonic for loss of cerebrospinal fluid pressure and localized neurologic symptoms are rare. A case of cranial nerve palsy from an unrecognized dural puncture is presented, illustrating the need for careful neurologic evaluation of a patient with postural headache.

Importance to family medicine



Case Presentation

"One liner" of the case

Most of our patients

A 26-year-old female was admitted for a postural headache and diplopia six days after a vaginal delivery with epidural analgesia. She had received an epidural blood patch two days prior to admission for this headache. On admission, she had a bilateral esophoria on cross cover testing consistent with bilateral cranial nerve six palsy. Brain magnetic resonance imaging demonstrated "sagging" brainstem and pachymeningeal (dural) enhancement. Her headache resolved two days after a repeat blood patch, although diplopia lasted seven days.

Why we care about this case =
high educational value



HPI

Very similar to case report – just needs tweaking

A 13-year-old boy presented with left anterolateral knee pain, stiffness, and slight weakness. The pain and stiffness worsened with prolonged sitting and climbing stairs. The symptoms began after he tripped and fell on his knee 12 months prior. Other than a superficial cut, he had no other obvious injury after the fall.

Examination revealed subtle swelling over the anterolateral aspect of his left knee (*Figure 1*). His left patella was nontender but palpable over the lateral epicondyle. He had decreased strength in his left quadriceps. During strength testing, he placed his right foot behind his left ankle to assist in extending his left lower leg. Results of apprehension, McMurray, Lachman, and varus and valgus stress testing were negative. Plain radiography was performed (*Figure 2*).

Description of findings unique to photo quiz

Presentations are better with pictures



Figure 1.



Figure 2.





Photo Quiz Question

Based on the patient's history and physical examination, which one of the following is the most likely diagnosis?

- A. Developmental dysplasia and dislocation of the patella.
- B. Iliotibial band syndrome.
- C. Osgood-Schlatter lesion.
- D. Patella alta.
- E. Patellofemoral pain syndrome.

See the following page for discussion.

Your DDx that you will discuss (and put in table format) later

Your turn!

Take 8 minutes to outline your:



Introduction: 2-5 sentences

Case: 1 liner + what happened

- or -



HPI: presentation and exam findings

Question: with 4-5 answers



Discussion

Exceptional comparison to literature

Unintentional dural punctures complicate up to 6% of epidural catheter placements, and up to half lead to dural puncture headache, as experienced by this patient. Between 10 and 36% of unintended dural punctures are not recognized during catheter placement. Cranial nerve palsies are rare complications of dural puncture, occurring in one of 400 to 8000 lumbar puncture procedures. The risk of cranial nerve palsy with unintentional dural puncture as seen in this case has not been assessed. The majority of cranial nerve palsies affect the abducens nerve due to its long and tortuous course. Interventions that resolve dural puncture headaches do not have immediate effect on cranial nerve palsies, which can take up to four months to resolve.

Important contribution to medical knowledge



Scholarly question(s)

Can early recognition and aggressive treatment of dural puncture headaches reduce the risk of secondary cranial nerve palsy?

Don't make your question: Take a good history or do a good exam



Photo Quiz Discussion

Same elements as case report discussion:

comparison to literature, contribution to medical knowledge

- The answer is A: developmental dysplasia and dislocation of the patella. Developmental dysplasia of the patellofemoral joint primarily occurs in adolescents. The malformation contributes to patellar instability, dislocation, and anterior knee pain...The annual incidence of acute patellar dislocation is estimated a 43 cases per 100,000 adolescents....

much longer because alternate diagnoses from the question need to be explained

Your turn!

Take 8 minutes to outline your:



Discussion: compare literature to your case: “similar to”, “in contrast to”, etc.
(may include Scholarly Question here)

- or -



Discussion: 1 paragraph per answer

Case Report Conclusion

Conclusion augments

introduction

Postpartum women are at risk for dural
puncture headaches with epidural or spinal
analgesia. Any patient with a postural headache
should be carefully evaluated for cranial nerve
deficits, which can be long lasting after
treatment

Implication supported
by case

Photo Quiz Summary Table

Summary Table	
<i>Condition</i>	<i>Characteristics</i>
Developmental dysplasia and dislocation of the patella	Radiography shows abnormal flattening of the trochlear groove, which is not congruent with the patella; dislocation is usually lateral; femoral condyle is easily visualized, and the patella can be visualized or palpated as a mass; knee maintained in flexed position
Iliotibial band syndrome	Overuse injury more common in adults; results from increased friction between the iliotibial band and the lateral femoral epicondyle; pain occurs at the lateral aspect of the knee joint and is aggravated by activity; positive Noble test result
Osgood-Schlatter lesion	Overuse injury in adolescents; quadriceps pulls the apophysis of the tibial tubercle, leading to anterior knee pain; pain increased with activity and prolonged sitting; radiographs are usually unremarkable, but may show small spicules anterior to the tuberosity
Patella alta	Common risk for recurrent dislocations; inferior pole of patella is superior to Blumensaat line, and tendon length is 20 percent longer than patella length
Patellofemoral pain syndrome	Overuse injury involving the patella and retinaculum, usually leading to anterior knee pain; increased pain with flexion-extension; swelling and locking rarely occur; normal patellofemoral joint space on imaging

Simple graph of differential and how to distinguish them... just tweak the explanations in your Discussion!

Your turn!

Take 4 minutes to outline your:



Conclusion: the pearl!

- or -



Summary Table: abstract from HPI

What Now?

- Ask colleagues and faculty to edit and review prior to submission
- Residents and faculty alike: socialize presentations with your department before submission!
- Know your institution's policy on oversight!

Going forward

- Start with a local conference
- Submit the same case (using feedback) to a state or regional conference
- Submit the same case (using feedback) to a national conference
- Submit the same case (using feedback) to an international conference
- Submit the same case for publication as soon as it's accepted at the last conference
- Four presentations and a publication from ONE CASE

Who publishes case reports?

Journals that frequently publish case reports:

Archives of Dermatology

Journal of Infectious Diseases

Medical Journal of Australia

Southern Medical Journal

Journal of the American Board of Family Medicine

American Journal of Obstetrics and Gynecology

Journal of Abnormal Psychology

Journal of the American Osteopathic Association

Clinical Geriatrics

American Journal of Medicine

Postgraduate Medical Journal

Family Practice

Military Medicine

Obstetrics and Gynecology

Mayo Clinic Proceedings

Annals of Pharmacotherapy

Thank you!

For case help email us at: roblennon77@gmail.com

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