



LESSONS LEARNED FROM SBS/AHT DETERMINATIONS

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WHO AM I

- Board certified anatomic and forensic pathologist
- Harvard pediatric pathology Scholar
- Pediatric forensic pathology research fellowship
- Chief Forensic Pathologist & Agency Director
- Practice as a pediatric forensic pathologist



A BABY WAS MURDERED

WHAT HAPPENED?

- Sudden deterioration in the community (2mo F)
- Resuscitation to the ER
- Medically unstable
- No injuries
- Head CT
- Eye exam
- Chest XR

THE HOSPITAL DIAGNOSES

- Abusive head trauma
- Ongoing / chronic abuse (rib fractures of different age)
- CPS activated for sibling (toddler)
- Died in hospital in less than a day

THE AUTOPSY

- Abdomen full of pus
- Ruptured portion of gut due to “necrotizing enterocolitis”
- No head injuries
- Healing birth trauma-related rib fractures

This baby died naturally.

THE PHONE RANG

- The hospital CAP called to review the findings
- Informed me that my findings were not possible
- “Large body of reliable literature”

“How can you live with yourself? When those parents kill her sibling that will be on you!”

THE CULTURE





“Walk of honor”, NYT 2019

2024, ORGAN DONATION AGENCY REP

*“[Doc, I’ve got another really bad one for you.
Parents killed their little girl]”*

2019, NARANG ET AL, PEDS RADIOLOGY

“In all medicine, but especially in pediatric medicine where the patient is invariably unable to advocate for his or her own interests, the safety of the patient takes precedence over all other concerns”

CHILD ABUSE IS REAL

- Child physical abuse happens daily in America
- Child beatings, torture and killings happen
- AHT – most common in infancy
- Shaking is one “generally accepted” mechanism of injury in AHT
- Head impact is more common

2018, CHOUDHARY ET AL., “THE CONSENSUS
STATEMENT”

“It is the role of physicians to determine whether the injuries and the history for the injuries are suspicious for AHT and whether the child should be evaluated by a multidisciplinary child protection team with the goal of protecting the child” (emphasis added)

PROTECTING CHILDREN IS HEROIC

- Infants and children are vulnerable
- They require care and protection
- The failure to protect kids may result in their death
- Sometimes those deaths are cruel, painful and violent
- On occasion the injuries / circumstances are disturbing to seasoned professionals

CHILD PROTECTION IS GOD'S WORK

- Protecting kids is virtuous
- The Bible expresses God's anger towards those who harm children
- Children are a gift from God
- The Bible has many examples of Jesus protecting children

2014, PETSKA & SHEETS, PEDIATR CLIN N AM

“However, it is important to remember that any parent or caregiver may momentarily lose control and injure an infant, people other than the parents may have abused the child, safety of the infant is the paramount priority, the threshold for reporting suspected abuse does not require diagnostic certainty, and the risk of missing the diagnosis of abuse is potentially life threatening.” (emphasis added)

THE ROLE OF THE FP

- We are not advocates for children
- We are not advocates for any one decedent
- We are supposed to be advocates for the science

“I’m here to speak for Jenny”

MY OBLIGATION AS I SEE IT

To provide a reliable, reviewable dataset upon which “the system” can act (or not act)

An advocate for the science

BUT IF YOU'RE NOT WITH US...

- Child death frequently happens after period of hospitalization
- Suspected AHT cases undergo “multidisciplinary team review”
- Die with labels such as:

“Diagnostic for abuse”

“Confirmed AHT”

THE RED FOLDER

- Cases present to the FP as “solved”
- The people involved – however peripherally – in the case “know” it was a child killing before the body is on the autopsy table
- There is a natural “trust” of doctors who protect children
- Police, prosecutors, others feel “safe” with the diagnoses



Confirmation

Discovery



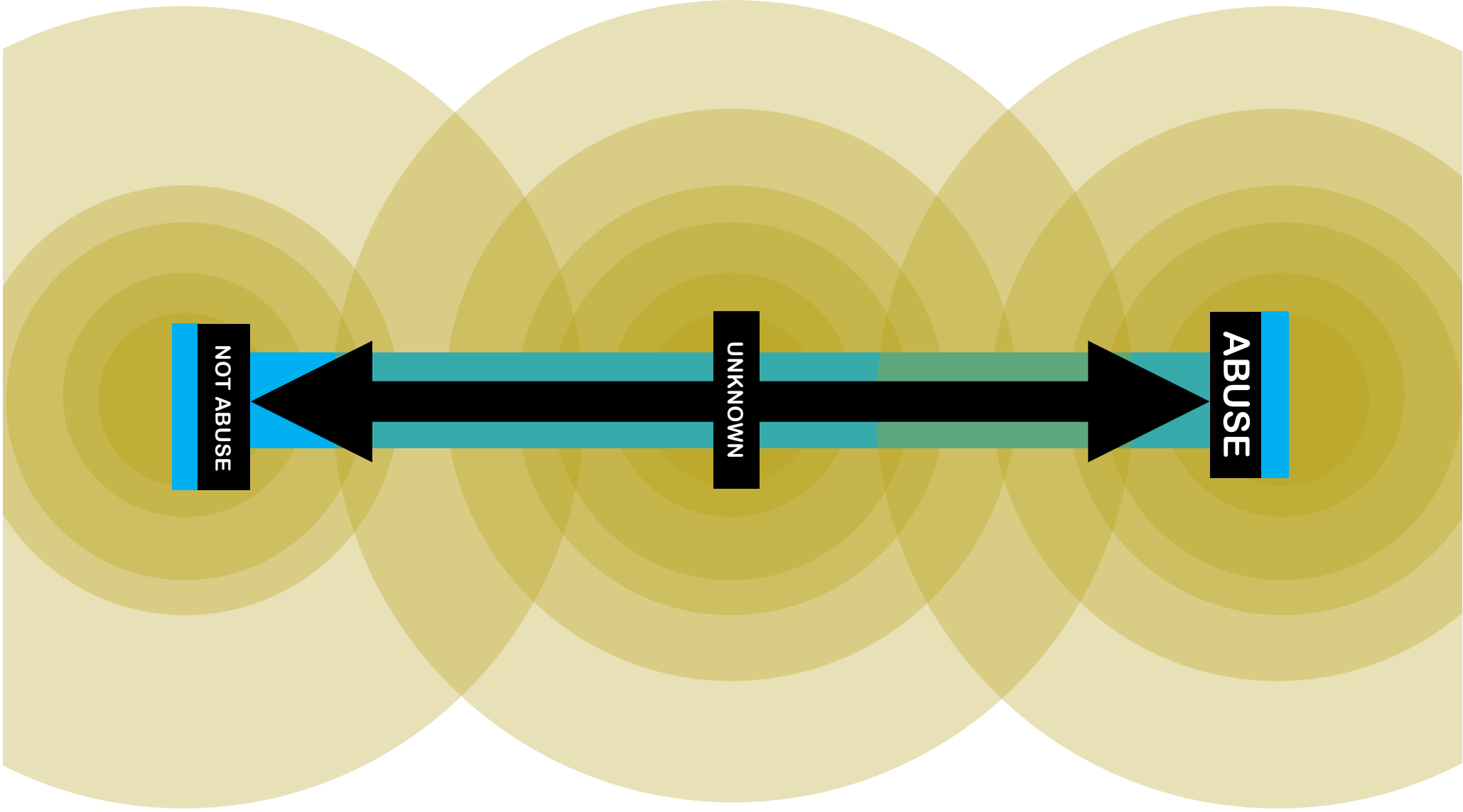
IS ALL AHT CONTROVERSIAL?

- No.

ABUSE IS LIKE PORNOGRAPHY

- You know it when you see it
- Or you think you do
- Based on your understanding of published writings, clinical experience, training

(and biases)



2019, THE CENTER FOR CHILD POLICY

“Irresponsible expert witnesses have created and perpetuated a false controversy regarding the science underpinning the diagnosis of abusive head trauma.”

2021, PFEIFER ET AL. AJR

“If fringe beliefs continue to infiltrate the literature and legal system, it may become easier to cloud accepted clinical experience and expert consensus, which can place future children at risk for recurrent abuse.”

DO YOU BELIEVE IN DIABETES?

- Clinical (patient treatment) medicine involves a feedback loop:
 1. Patient presents with problem
 2. Diagnosis is made
 3. Treatment is rendered
 4. Patient improves, stays same, gets worse, dies

DIAGNOSIS? OPINION?

- The diagnosis of AHT – clinically or at autopsy – remains an opinion
- There is no confirmatory “test” for AHT
- The label “*diagnostic for AHT*” is misleading

AGREE! OR ELSE...

Pediatricians call on governor for review of shaken baby cases

By [Patricia Wen](#) Globe Staff, May 4, 2016, 12:10 p.m.



Prosecutors dropped charges against Aisling Brady McCarthy after the state medical examiner's office changed its ruling. KEITH BEDFORD/GLOBE STAFF

A group representing 1,800 pediatricians in Massachusetts is calling on Governor Charlie Baker to launch a review of the state medical examiner's office, after it changed its determination on three infant deaths in the past two years.

2016, BOSTON GLOBE

The doctors' group is asking the governor to "initiate a review to determine the root causes of recent events and begin a longitudinal process for supporting, improving and maintaining the ME Office's ability to reliably and accurately assess questions of fatal child abuse."

2016, BOSTON GLOBE

“...we ask that you consider these recent cases as warnings that systemic weaknesses may be undermining the reliability of our medical examiners.”

THE AUTOPSY



PROUD FORENSIC PATHOLOGIST

- I'm not a "dead people doctor"
- I frequently perform autopsies
- My role is often to play mediator/arbitrator
- When I arrive at work I am:
 - Physician
 - Anatomic pathologist
 - Forensic pathologist

AUTOPSY IS THE PRACTICE OF MEDICINE

- I consider it settled that performing an autopsy is the practice of medicine
- Variations on how this is interpreted
- Autopsy practice should be regulated, standardized, predictable

There should be a standard of care.

BABIES ARE NOT SMALL ADULTS

- Kids (at each different developmental stage) are different than adults
 - Anatomy
 - Diseases
 - Injuries

BIG AUTOPSIES, LITTLE BODIES

- Despite the differences, many pathologists perform adult-type autopsies on pediatric cases
- Although “complex” findings might be discovered, the approach to evaluation is inconsistent

The smallest bodies need the most labor-intensive work.

STANDARDS? SCHMANDARDS.

- NAME has no pediatric autopsy standards
- NAME has AHT autopsy recommendations, but **they are not approved standards**
- Fear about appearing to be producing new standards

“The concern was that the paper could be used in court to try to discredit the [pathologist] for an inadequate exam.”

THE TRUTH, THROUGH AN ADVOCACY FILTER

- Autopsy diagnoses are medical diagnoses
- That means that they are holistic:
 - History / circumstances
 - Physical examination
 - Lab studies
 - Literature

COLLIDING REALITIES

- What happens when you try to integrate "diagnostic for AHT" from the medical records into your opinions and autopsy conclusions?
- What happens when your autopsy results don't support the clinical opinions / diagnoses?

“[The CAP’s opinions are much better for our case doc. No offense. We’re not going to call you. If the defense wants to, they might call you.]”

THE REASONS



2019, THE CENTER FOR CHILD POLICY

“There is no valid medical controversy regarding the accepted medical methodology used to arrive at such a diagnosis. More than 40 years of medical research underpins the diagnostic legitimacy of AHT, and multiple medical societies have produced and disseminated consensus statements regarding the validity of the diagnosis.”

2019, THE CENTER FOR CHILD POLICY

“Yet, in spite of the scope of the issue and the uniformity of the medical community’s acceptance of the causes and mechanisms of AHT, and the ability of properly trained medical professionals to recognize and diagnose it, a gap exists between what is known medically and the reliability in achieving just outcomes of AHT cases in courtrooms.” (emphasis added)

2021, PFEIFER ET AL. AJR

“Denialism refers to a phenomenon that involves the use of rhetorical arguments to give the appearance of legitimate unresolved debate about matters generally considered to be settled.”

THERE IS NO LEGITIMATE DEBATE

- Then I guess I'm part of the illegitimate debate
- Many other forensic pathologists are part of that illegitimacy as well

RECURRENT CRITICISMS

- The child abuse (and forensic pathology) literature has been regularly (rightfully) criticized for being heavily biased, circular, self-serving, and unreliable

RECURRENT CRITICISMS

- Large, multi-author opinion (“consensus”) papers have become the courtroom-ready standard of reference for individual cases

LARGE BODY OF RELIABLE LITERATURE

- The statistics don't lie...
- !!!!
- First. Statistics apply to populations and not to individuals. THAT AHT is customarily diagnosed with a certain set of findings does not mean that AHT happened in a singular case.

IF THE STATS ARE TENUOUS, DO THEY HELP AT ALL?

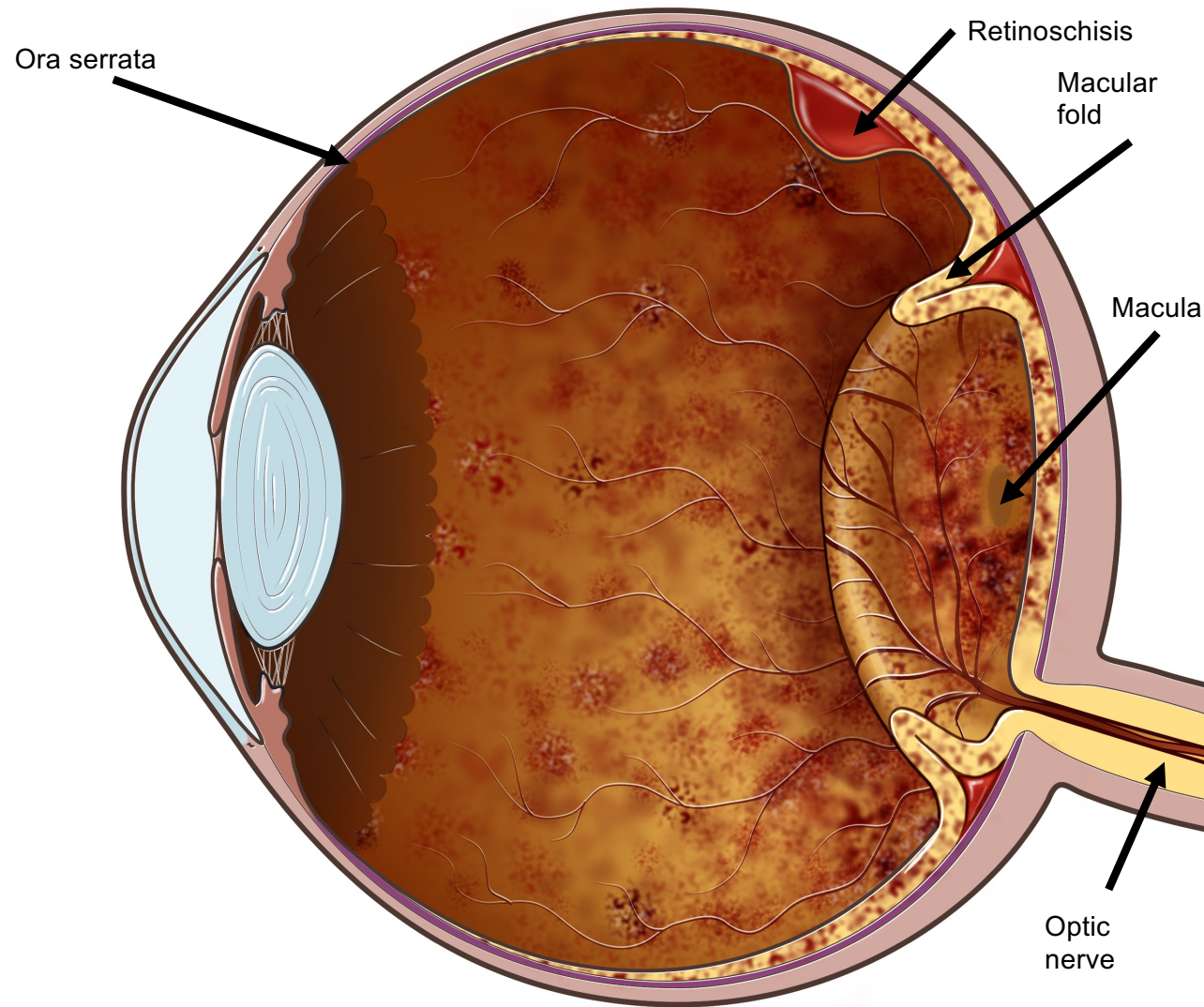
- Probably, some of them, sometimes
- Meaningless without:
 1. Gold standard (“answer key”)
 2. Common frame(s) of reference (identical cases)
 3. Regulated approach to individual case data collection and analysis

WINDOWS TO THE SOUL

- Ocular hemorrhages have long been considered important markers of AHT / SBS

2010, LEVIN. AAP

“Retinal hemorrhage is a cardinal manifestation of abusive head trauma. Over the 30 years since the recognition of this association, multiple streams of research, including clinical, postmortem, animal, mechanical, and finite element studies, have created a robust understanding of the clinical features, diagnostic importance, differential diagnosis, and pathophysiology of this finding.”



IT'S HOW AND WHEN YOU LOOK

- Removing eyes is easy
- But it is mutilating – parents can tell, they complain, and they sue
- So.
- We remove eyes when it's “medically justified”
- When's it justified? When someone suspects AHT.

IT'S HOW AND WHEN YOU LOOK

- But if RH are “diagnostic of abuse”, and you only look for them when someone suspects AHT, it's no wonder the association rate between RH and AHT is so very, very high

WHAT'S REALITY?

- Retinal hemorrhages “typical” of AHT can be found in many different situations:
 - Meningitis
 - Bleeding disorders
 - Metabolic disorders
 - Sepsis complicating many underlying conditions
 - Etc.

IN MY PRACTICE

- I do not use the presence or absence of ocular hemorrhages to rule-in or rule-out AHT
- Their presence does not make AHT more or less likely

AD HOMINEM AD NAUSEUM

- Presented the results of a large “all pediatric autopsy” study from Miami-Dade County at a national meeting
- Recently the results were said to be “meaningless”
- Large AND reliable body of literature says otherwise...

LESSONS LEARNED

- FPs remain under both definable and intangible pressures from within their partner communities
- True independence is hard / impossible to achieve

LESSONS LEARNED

- While some institutions perform elegant, thorough and reliable pediatric forensic autopsies, the absence of national standards makes this area ripe for failures
- Most FP's don't perform enough pediatric forensic autopsies to develop and maintain technical competency and expertise

LESSONS LEARNED

- Applying population statistics to individuals is dangerous
- Applying flawed statistics to solve medical (or legal) matters is unacceptable
- Labeling contrary opinions as “fringe” or “false” represents coercive, bullying tactics, not medical professionalism or science

LESSONS LEARNED

Communities (and therefore children) are protected when forensic pathologists (are allowed to) get it right