



# Intrarenal Pressures: Do NOT Need to be Measured

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# What do we think we know

- \* Lower intrarenal pressures → SAFER
- \* EVERY patient is DIFFERENT
- \* How do we typically achieve lower pressures?
  - \* Lower the pressure of irrigation - ALARA
  - \* Use an access sheath – whenever possible
  - \* Use a smaller caliber ureteroscope
- \* When does it really matter?
  - \* Longer cases
  - \* Pre-stented cases
  - \* Recent infection or positive urine culture
  - \* Infection stones



# Simplified

- \* Intrarenal pressure  $< 30 \rightarrow$  SAFEST
- \* Intrarenal pressure  $> 30 \rightarrow$  LESS SAFE
  
- \* Intrarenal pressure AS LOW AS POSSIBLE to have a successful procedure  $\rightarrow$  GOOD
- \* Intrarenal pressure “high”  $\rightarrow$  BAD
- \* Unsuccessful procedure  $\rightarrow$  BAD



# COMMON CASE

- \* 52 yo woman – undergoes urgent ureteral stent placement for an obstructing 7 mm proximal ureteral stone with sepsis
- \* Recovers following stent placement after 3 day ICU stay, 5 day hospitalization, and culture specific antibiotics
- \* Cultures now negative
- \* Plan? →

# COMMON CASE

- \* 52 yo F – undergoes urgent ureteral stent placement for an obstructing 7 mm proximal ureteral stone with sepsis
- \* Recovers following stent placement after 3 day ICU stay and treatment with antibiotics
- \* Cultures now negative
- \* Plan? → URETEROSCOPY
  - \* Risks and benefits fully explained to patient including higher risks of infection

# COMMON CASE

- \* OR – uncomplicated ureteroscopic intervention with UAS – stone fragmented and fragments extracted -- stent replaced

# COMMON CASE

- \* OR – uncomplicated ureteroscopic intervention with UAS – stone fragmented and fragments extracted -- stent replaced
- \* In recovery room – pt with fever to 103, HR 120s, BP 90/50 – sepsis protocol initiated
- \* Despite the optimal care → pt does NOT recover well

6 months later → Lawsuit



1 year later → COURT

Welcome to North America

# COURT

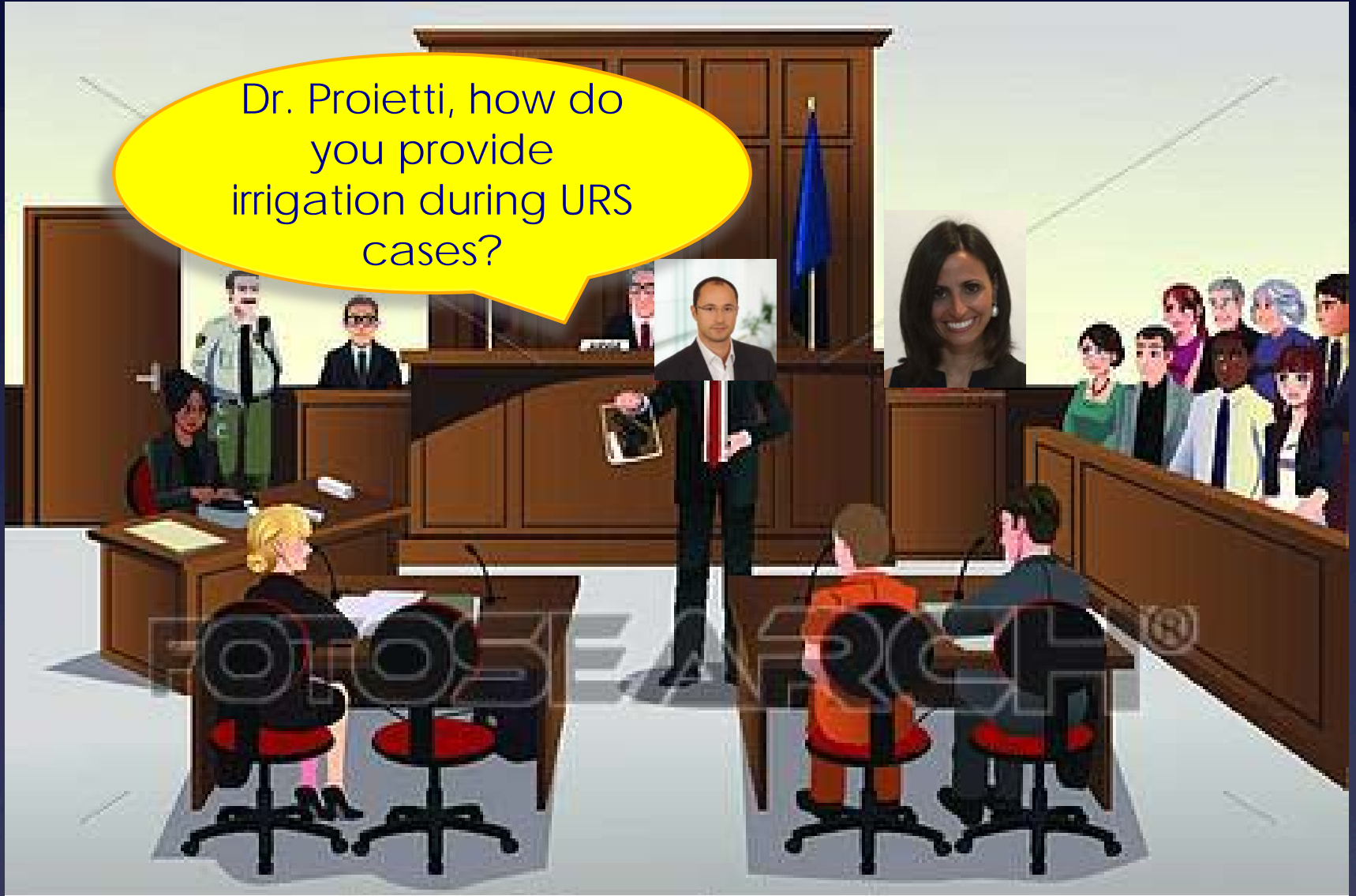


Achilles Ploumidis, Esq  
Defense Attorney

Dr. Silvia Proietti  
Urologist

# COURT

Dr. Proietti, how do you provide irrigation during URS cases?



# COURT

I follow what my mentor has taught me...



# COURT

Gravity with  
manual  
pump  
irrigation

Tweet



Guido Giusti  
@GuidoGiusti

Don't use pressured bags during  
[#RIRS](#) ... better irrigation by gravity +  
manual pump as I do in my routine



# COURT

Do you monitor  
intrarenal pressures  
during ureteroscopy to  
reduce risk of sepsis?



# COURT

I use the lowest possible pressure to successfully perform the case



# VERDICT



**VERDICT**

**DEFENSE VICTORY**

~~VERDICT~~

~~DEFENSE VICTORY~~

**BUT WAIT.....**

**PLAINTIFF'S ATTORNEY**

# COURT

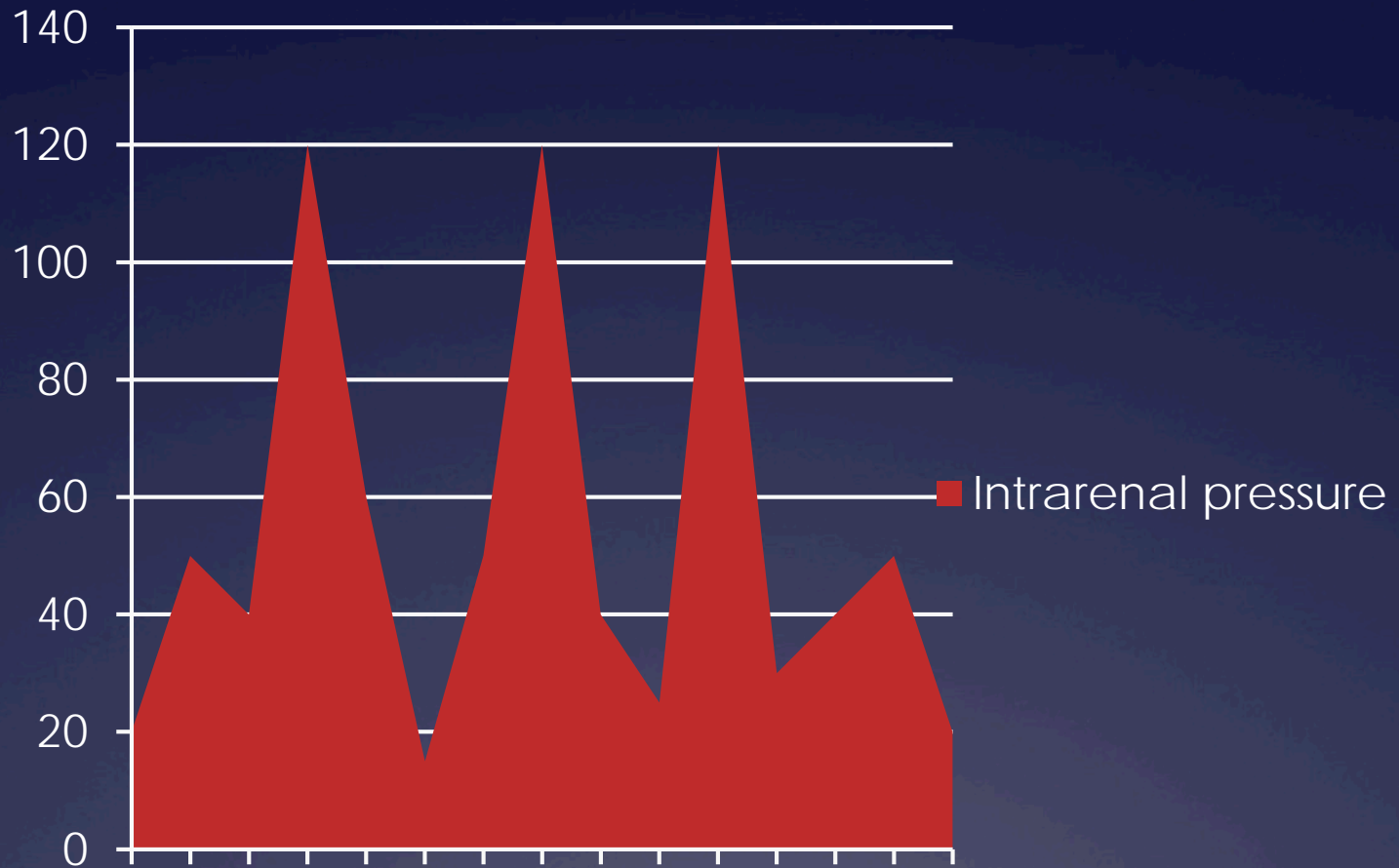
As you are aware, your new state of the art equipment monitors the intrarenal pressures, as you have recommended to this forum. This is your patient's case

Manoj Monga, Esq  
Plaintiff's Attorney



# Flow Chart of Intrarenal Pressure

## Captured by Device and DOCUMENTED by Nurse



# COURT

How do you explain your use of such high pressures during the course of this case?

Oh my gosh, the pressures went above 30...



# COURT

I NOW wish we did NOT measure the actual pressure...



# EUROPEAN EXPERT WITNESS

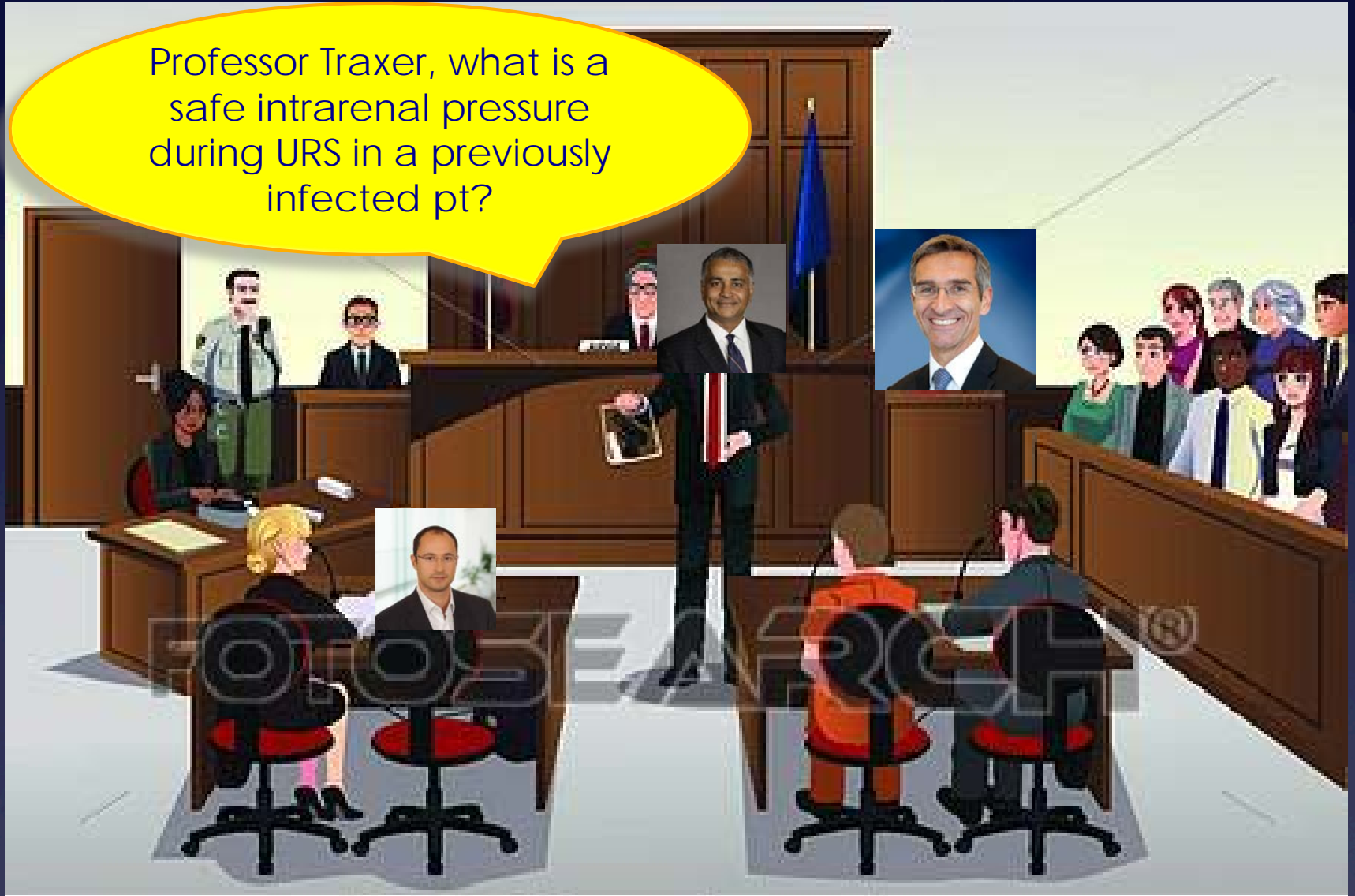
# EUROPEAN EXPERT WITNESS





# EUROPEAN EXPERT WITNESS

Professor Traxer, what is a safe intrarenal pressure during URS in a previously infected pt?



# EUROPEAN EXPERT WITNESS



Intrarenal pressures must remain < 30 to minimize risk of sepsis

# EUROPEAN EXPERT WITNESS



I RECOMMEND using the lowest possible pressure. All urologists are taught to NEVER go above 30 now that we can measure them.

# JURY VERDICT

**JURY VERDICT**

**NEGLIGENCE/MALPRACTICE**

**JURY VERDICT**

**NEGLIGENCE/MALPRACTICE**

**PLAINTIFF VICTORY**

# Intrarenal Pressures

- \* More information can sometimes help
- \* BUT this time, less information may be better
  
- \* Complex cases or in the setting of an infection
  - use an access sheath and minimize case duration
  - \* Stage procedure when needed
  - \* Fully disclose risks of intervention to your patient



# CONCLUSIONS

- \* “LESS” INFORMATION IS SOMETIMES “MORE”
- \* LOWER IS BETTER (ALARA)
- \* FOLLOW AND USE THE PRINCIPLES WE ALREADY KNOW
- \* WE DO NOT NEED A “NUMBER” SINCE WE KNOW WHAT TO DO AND WHEN TO DO IT





THANK YOU