2022 SAMBA ANNUAL MEETING
MAY 11 – 14, 2022

Cases From the Real World

Moderator: Michael T Walsh, MD Assistant Professor Mayo Clinic Rochester, MN

Panelists:

Meghan Valach, MD Chief Medical Officer Mobile Anesthesiologists

Tina Tran, MD Chief of Anesthesiology, Wilmer Eye Institute, Johns Hopkins Hospital

Catherine Tobin, MD Associate Professor, Medical Director MUSC Simulation Center, Lewis Blackman Endowed Chair of Patient Safety and Simulation Medical University of South Carolina

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Disclosures:

- Michael T Walsh, MD - none
- Tina Tran, MD - Melt Pharmaceuticals Advisory Board
- Meghan Valach, MD - none
- Catherin Tobin, MD

  SMART, Medication Error Reduction in the Operating Room, Funded by AHRQ
  Simulation Education for Ebola/COVID19 Healthcare Team Competency, Funded by Centers for Disease Control (CDC) and Prevention

SAMBA 2021 · A Virtual Experience
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1st Case

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- Otherwise healthy 33 yo nurse practitioner added on to list day before for colonoscopy
- 12 days of persistent diarrhea and 2 days inability to eat

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Past Medical History

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- ROS negative except for respiratory
  - Hx asthma during allergic reactions
  - Intubated 7 times in the past
    - Attributed to her mastocytosis
    - Last intubation 8 months ago
  - No recent respiratory issues
    - "rarely" uses inhaler and "not in awhile"

What else do you want to know?

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- Meds:
  - Lexapro
  - Xopenex hFa inhaler
  - Symbicort inhaler
- Allergies:
  - Ketorolac
  - Vanco, sulfa, PCN
  - Cephalosporins
  - IVP Dye Latex
  - Foods:
    - Avocado, Kiwi, Banana

Anaphylaxis!

Anyone want to do this case?

In an office?

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Things to consider

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- This is a nurse practitioner who felt she had a good regimen for her mastocytosis and it was under control
- No respiratory problems in last 8 months
- Just a colonoscopy

BUT…….

- Further questioning – admits to having hives the night before but responded to Benadryl and not really unusual for her

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- Everyone ready to precede?
- Any special considerations?

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Decide to proceed

- Pretreated with 50 mg IV diphenhydramine, 20 mg famotidine, and 2 mg Decadron
- MAC anesthesia
  - 50 mg lidocaine and propofol infusion
    - Propofol boluses prn
  - 4 mg ondansetron and 400 cc of LR
- 12 min procedure time

Everything went fine

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PACU course

- Pt requested additional Benadryl for itching – 12.5 mg given
- Requested an additional dose – 12.5 mg given
- Shortly after 2nd dose, she started coughing and complaining that it was a little difficult to catch her breath

What now?

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PACU course

- Albuterol doses given, without help
- Upon exam, breath sounds were severely diminished and patient now having difficulty talking

Now what?

- Intubated at the bedside and paramedics were called

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Next Case

- 27 yo female at 20 weeks gestational age in pregnancy presents for outpatient EUS (Endoscopic Ultrasound) at your very busy Digestive Disease Unit. You have 3 busy rooms this day with over 20 cases.
- Nursing notes: not sure why we're even doing this case. Overheard a nurse navigator say the patient really wanted procedure done and did not want to wait till after baby was born.

In your system, would you know anything about this case before it showed up at your door morning of surgery?

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Past Medical History

- Pancreatitis- She has had 3 episodes, and patient notes that this is why she is here today. There was also talk of sphincter of Odi dysfunction

Would you do this case?

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Other PMH

- Hyperemesis with PICC line in place on TPN
- HTN
- Obesity
- Somatization Disorder
- Migraines
- Chronic Pain Syndrome
- Cystic Fibrosis- per patient it is "not in her lungs" but more GI system.
- Factor V Leiden Deficiency-with history of a DVT (3 in last 2 years)
- POTS syndrome (Postural orthostatic tachycardia), s/p ablation for atrial tachycardia and now with a pacemaker

What else do you want to know?

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- **Medications:**
  - Ondansetron
  - Promethazine
  - Prenatal vitamins
  - Vit D
  - Enoxaparin 900mg Q 12
  - Labetalol
  - Nifedipine

  → Flecainide
- **Physical exam:**
  - 95 kg, EKG-paced at 85, BP 128/87, Oxygen saturation 99%
  - Lungs CTA, PICC line noted in R arm, pacemaker right chest

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Further Workup

- What do you want to know about her heart?
- Complex atrial tachycardia
- Pacemaker checked 1 month ago – pacer dependent; battery is fine
- 2000 ECHO: Normal function
- Was told she needed repeat ECHO but missed appointment
- Do you need OB to weigh in?
- Says it's okay to procede
- Check fetal heart tones

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Would you do this case?

Where?

How would you proceed?

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- RSI: Propofol, lidocaine, and succinylcholine
- MAC 3, grade 1 view 6.0 ETT
- TIVA done with fentanyl and Zofran (no inhalational)
- Case was over 1 hour long
- End of case, patient extubated
- Spontaneously breathing but seemed weak

What now? Dibucaine Number?

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Case # 3

- Healthy and active 35 year old woman scheduled for ptosis surgery (oculoplastics) under GA in an ASC.
- Diagnosed with mitochondrial disorder several years ago. No medications taken. NKDA
- Family history of mitochondrial disorder in several family members with varying clinical presentations such as strokes, respiratory failure, and CHF
- H&P by PCP did not mention mitochondrial disease in the PMH. Concluded that patient was stable for anesthesia and surgery

What else do you want to know?

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- Last seen by a geneticist a year ago. The geneticist recommended comprehensive labs and TTE every 6 months.
- Patient was not aware it needed to be done prior to surgery

In your system, would you know anything about this case before it showed up at your door morning of surgery?

Would you do this case?

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- Patient was upset and stated that she has had surgery under anesthesia previously without any issues. Her exercise tolerance is good. She is a stay at home mom who cares for two young children

Would you do this case

Call her geneticist?

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- Geneticist tells you that the patient should obtain labs and TTE prior to surgery
- The patient says that she will accept the higher risk of complications as her ptosis is significantly affecting her life

Now what????

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Beside POCUS TTE ?

- Normal EF, no valvular lesions

OK to proceed now?

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Phone a Friend

- Geneticist agreed to proceed without formal TTE if she was asymptomatic
- Pediatric anesthesiologist originally assigned to the case wanted to wait until she had an official TTE, cardiologist consult, and to proceed in the main hospital
- Cardiac anesthesiologist did not feel strongly about the TTE if she was asymptomatic

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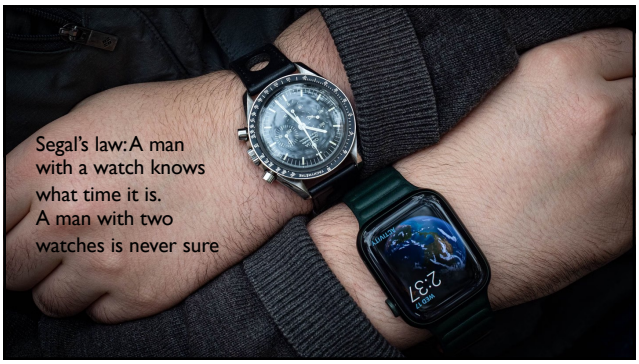

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How will you proceed?

- Any special considerations for the anesthetic?

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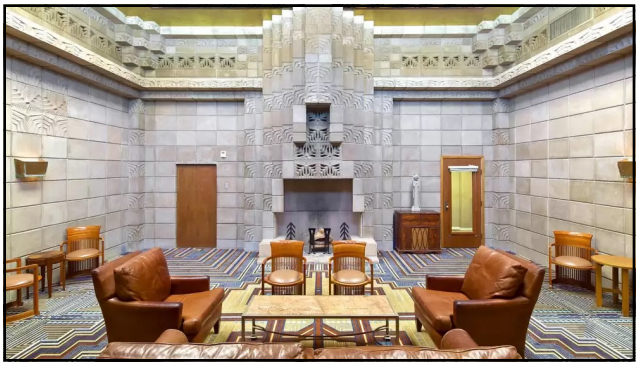

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Case # 4

- 52yo with known left adnexal mass, ascites and pelvic organ prolapse
- Diagnostic paracentesis and peritoneal biopsy, both of which were negative for malignancy
- Elevated tumor markers of Ca-125 of 402, Ca 19-9 of 68 and CEA 4.3 and low albumin 2.4
- Plan: laparoscopy - biopsy and frozen pathology

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PMH

- One month prior: seen in the ED for abdominal pain
  - CT abdomen/pelvis showed a left ovarian mass concerning for malignancy with peritoneal carcinomatosis and possible bone metastasis, as well as hyperechoic lesions in the spleen.
- The following week: US-guided FNA and paracentesis
  - showed inflammatory cell but negative for neoplasm
- After another week, patient presented to the ED again for evaluation of abdominal pain and distention

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In ER

- Alert and oriented without distress
- Afebrile with BP=99/74. HR=102 RR=16 and SAO2= 100%
- "She is slightly tachycardic and pressures are slightly soft, but she appears stable. She is in no acute distress."
- Plan: repeat paracentesis

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ER course

- After draining the 3L of ascitic fluid, patient was persistently tachycardic to the 150s.
- On monitor: SVT vs afib
- ECG: possible SVT vs. atrial flutter (2:1 block)
- No complaints of chest pain, but feels heart skipping

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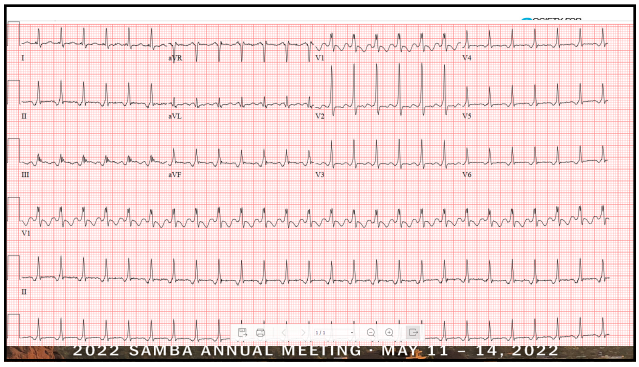

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ER course

- Vagal maneuvers were attempted without successful conversion.
- 10mg of diltiazem given
- Repeat EKG appears to show that she is back in sinus rhythm, although tachycardic compared to baseline.

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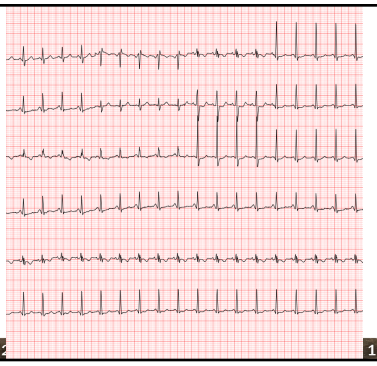

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10 days later……

What else do you want to know?

- Hgb 9.2 BP= 100/53
- Albumin 2.4 HR = 88

OK to proceed now?

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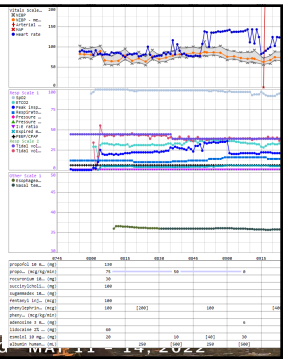
- Propofol 130 mg
- Fentanyl 100ug
- Lidocaine 50 mg
- Succinylcholine 100 mg
- Esmolol 20 mg

- 100 ug phenylephrine
  (7 doses during prep)



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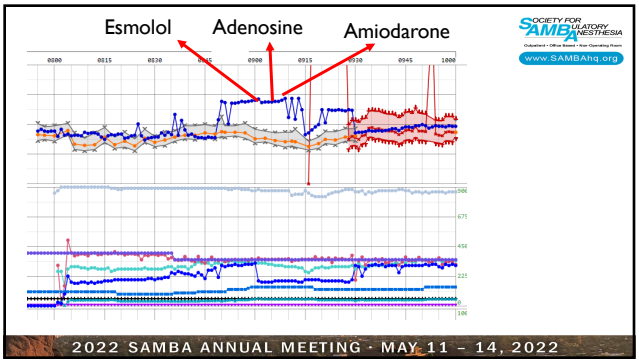

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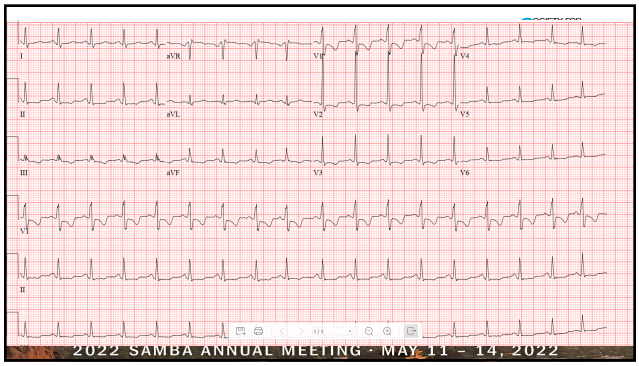

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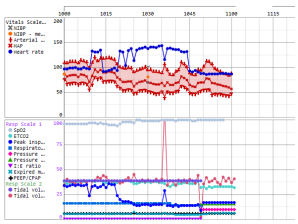

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ICU

- Narrow complex tachyarrhythmia, possible atrial tachycardia
- Bedside echo
  - Enlarged LA
  - Normal LV function
- Trend troponins

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Troponin T, Baseline, 5th gen	9
Troponin T, 2 hr, 5th gen	9
2H Delta	0
2H Delta Interp	Not Changing
Troponin T, 6 hr, 5th gen	CANCELED

- Weaned phenylephrine and amiodarone drip
- Replaced electrolytes for Mg and K
- Fluid boluses as needed
- Transfused 1 unit for Hgb=7.3

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Formal ECHO next morning

- 1. Mildly enlarged right ventricular chamber size, normal systolic function , and estimated right ventricular systolic pressure is 42 mmHg
- 2. Normal left ventricular chamber size, no regional wall motion abnormalities, calculated 2-D linear ejection fraction 67%
- 3. Normal left ventricular filling pressure
- 4. Severely enlarged left atrial size with redundant interatrial septum (bowing towards the right)
- 5. No hemodynamically significant valvular heart disease
- 6. No pericardial effusion

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Discharged POD #4

- Metoprolol 25 mg BID
- 1 month heart rhythm monitor
- Followup in 6 week
- "…counseled the patient that this is not a life-threatening arrhythmia. Recommended that she wait for some time (e.g. 30 minutes) unless significant symptoms. If concerning symptoms, patient can go to ED"

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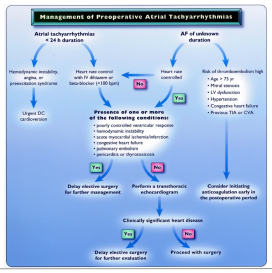
ANESTHESIOLOGY
Trusted Evidence: Discovery to Practice
From: Perioperative Atrial Tachyarrhythmias
Anesthesiology. 2002;97(6):1618-1623. doi:10.1097/00000542-200212000-00039



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Focal Atrial Tachycardia

- 10% of all SVT (younger women higher risk)
- HR 130-250 range of symptoms
- Most patients have relatively normal hearts
  - Long term effects can lead to cardiomyopathy
- Hard to diagnose on regular EKG
  - Quicker onset/offset than sinus tach
  - Change in p wave morphology and variable pr intervals

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Management

- Vagal maneuvers and adenosine not usually effective
- AV nodal blocking agents work best
  - Helps control rate and in some case even terminate
    - Calcium channel blockers and beta blockers
- Sotalol and amiodarone effective
- Best treatment long term – radiofrequency ablation

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