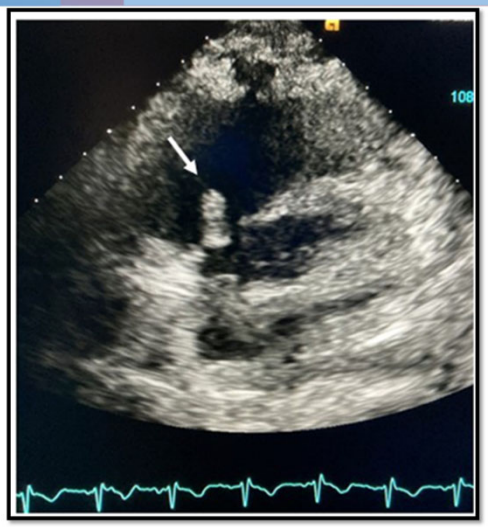
TRANSESOPHAGEAL ECHO

- Severe TV Regurgitation
- Large TV Vegetations (2 x 1 cm)
- Flail TV Leaflets
- Severe Valve Malcoaptation



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ENDOCARDITIS IN PREGNANCY

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Outcomes of Endocarditis in Pregnancy: A Single-Center Experience

Kayle Shapero,[1] Sami El-Dalati,[2] Kathryn Berlacher,[1] and Christina Megli[3]

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	Non-Pregnant Average		Pregnant Average	
Demographics	Median or Count	% or IQSR/SD	Median or Count	% or IQSR/SD
Age at Delivery	32.6	6.9	29.6	5.8
Hx of IVDU	118	80.8	29	85.3
Hepatitis C	62	42.5	23	67.8
Medication for OUD				
Methadone	11	7.5	7	20.6
Suboxone	24	16.4	13	38.2
Suspected Source IVDU	113	77.4	25	73.5

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	Non-Pregnant Average		Pregnant Average	
	Median or Count	% or IQSR/SD	Median or Count	% or IQSR/SD
Completion of Abx	69	47.3	20	58.8
Surgical Indication	100	68.5	25	73.5
Maternal Outcomes				
Left AMA	25	17.1	8	23.5
Addiction Med Consult	48	32.9	17	50.0
Valve Replacement	43	29.5	11	332.4
Recurrent Endocarditis	29	20.0	8	23.5
90-day Mortality	14	9.6	1	2.9

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Delivery and Fetal Outcomes	Total (n = 34)	Percentage
Intrapartum IE	29	85.3
Postpartum IE	5	14.7
Live births	26	70
Perinatal mortality	5	19.2
Termination	3	9
Mode of delivery	...	...
C-section	9	41
Spontaneous vaginal delivery	19	86
C-section indication for maternal instability	3	14
Induction of labor	6	27.3
Average gestational age of live birth, wk	35	...
Preterm delivery	11	50
NICU stay	15	68

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BACK TO THE CASE…

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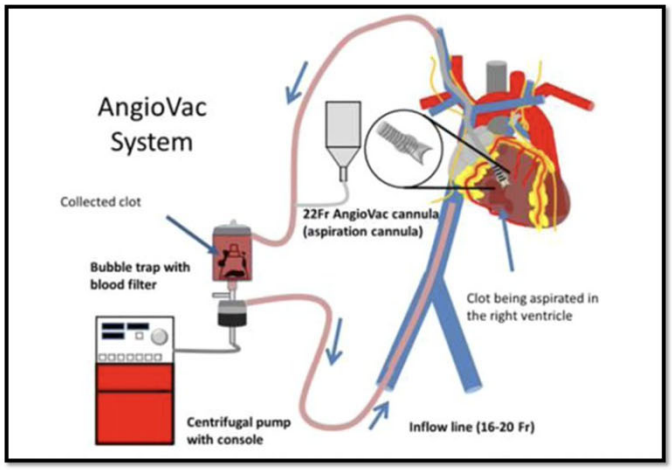
CLINICAL COURSE

- Cardiothoracic Surgery = medical management w/consideration of valve surgery after delivery.
- Improved w/IV antibiotics & was extubated.
- 29 + 6 weeks:
  - ↑ Tachypnea, Tachycardia, Oxygen Needs
  - CT w/worsening septic emboli and small pericardial effusion.
  - Multidisciplinary rounds = decision for debulking of TV vegetation.



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SIDEBAR – RIFAMPIN

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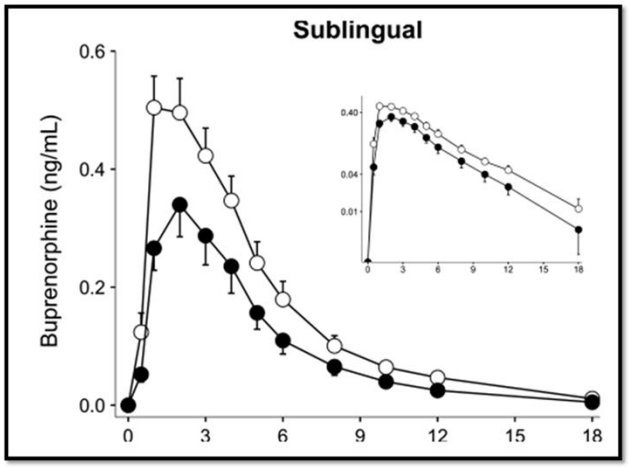
Rifampicin decreases exposure to sublingual buprenorphine in healthy subjects

Nora M. Hagelberg[1], Mari Fihlman[1], Tuija Hemmilä[1], Janne T. Backman[2], Jouko Laitila[2], Pertti J. Neuvonen[2], Kari Laine[3,4], Klaus T. Olkkola[5] & Teijo I. Saari[1]

- Rifampicin tended to decrease the bioavailability of SL buprenorphine from 22% to 16%.
- Occurs due to induction of CYP3A4 activity by rifampicin in the intestinal wall & liver.
- Can lead to drug craving & potential withdrawal effects.



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ADDICTION MEDICINE CONSULT

- Opioid withdrawal onset within 12 hours of admission and patient wanting to leave AMA.
- Short-acting opioids started for pleuritic chest pain.
- Patient open to initiation of buprenorphine.
- Goal is to avoid precipitated withdrawal with micro-induction on buprenorphine.

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UNDERSTANDING BUPRENORPHINE

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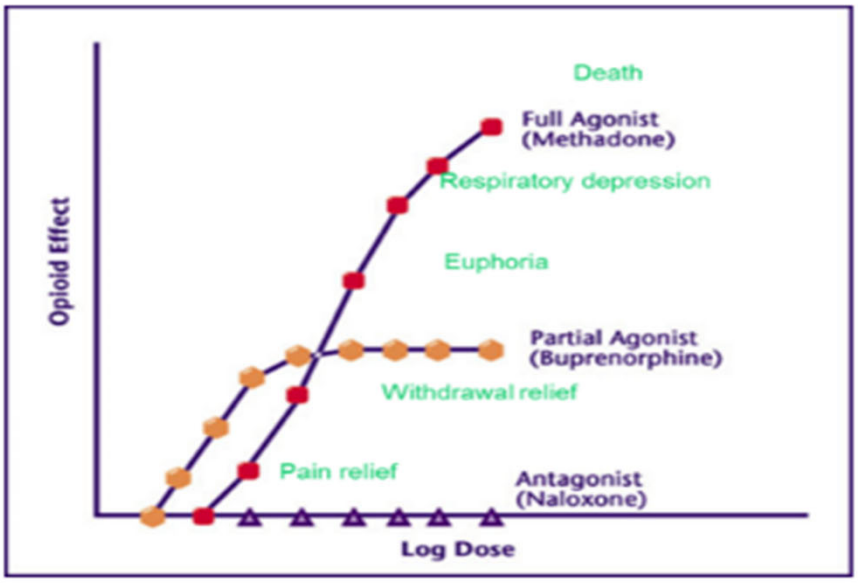
Effect on Mu Opioid Receptor



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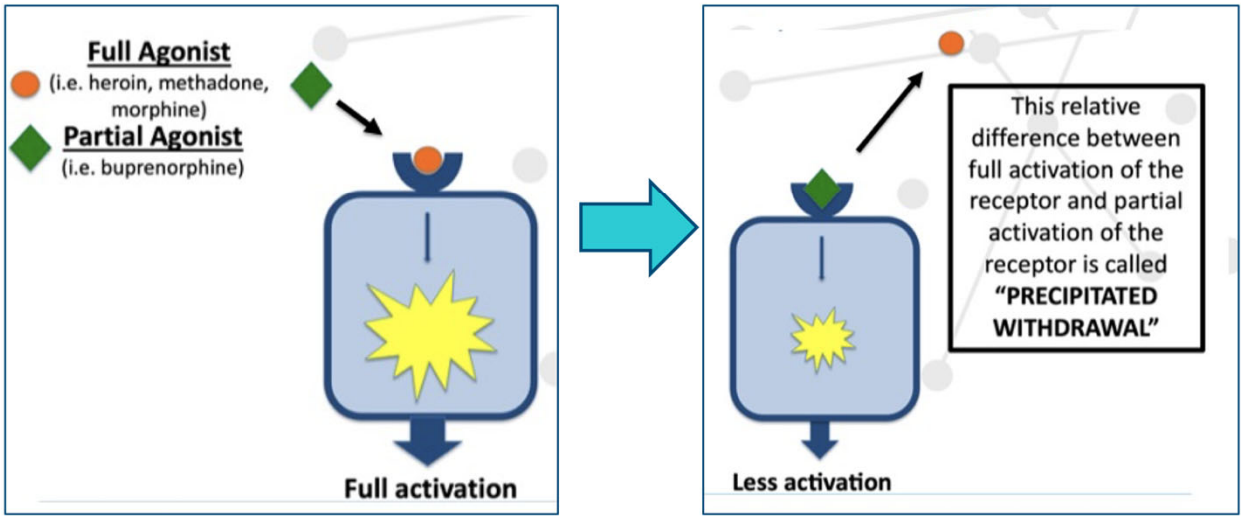
PRECIPITATED WITHDRAWAL



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CLINICAL OPIOID WITHDRAWAL SCALE (COWS)

Resting Pulse Rate beats / minute
Measured after patient is sitting or lying for one minute
- (0) pulse rate 80 or below
- (1) pulse 81 to 100
- (2) pulse 101 to 120
- (4) pulse rate greate than 120

GI Upset:
over last 1/2 hour
- (0) no GI symptoms
- (1) stomach cramps
- (2) nausea or loose stool
- (3) vomiting or diarrhea
- (5) multiple episodes of diarrhea or vomiting

Bone or Joint aches:
If the patien was having pain previously, only the additinal component attributed to opiates withdrawal is scored
- (0) not present
- (1) mild diffuse discomfort
- (2) patient reports severe diffuse aching of joints/muscles
- (4) patient is rubbing joints or muscles and is unable to sit still because of discomfort

Gooseflesh skin:
- (0) skin is smooth
- (3) piloerrection of skin can be felt or hairs standing up on arms
- (5) prominent piloerrection

Sweating over past 1/2 hour not accounted for by room temperature or patient activity.
- (0) no report of chills or flushing
- (1) subjective report of chills or flushing
- (2) flushed or observable moistness on face
- (3) beads of sweat on brow or face
- (4) sweat streaming off face

Tremor:
Observation of outstretched hands
- (0) no tremor
- (1) tremor can be felt, but not observed
- (2) slight tremor observable
- (4) gross tremor or muscle twitching

Runny nose or tearing:
Not acounted for by cold symptoms or allergies
- (0) not present
- (1) nasal stuffiness or unusually moist eyes
- (2) nose running or tearing
- (4) nose constantly running or tears streaming down cheeks

Total Score:
The total score is the sum of all 11 items
Initials of person completing assessment:
Score: 5- 12 = ***mild;*** 13-24 = ***moderate;***
25-36 = ***moderately severe;***
more than 36 = ***severe withdrawal***

Restlessness:
Observation during assessment
- (0) able to sit still
- (1) reports difficulty sitting still, but is able to do so
- (3) frequent shifting or extraneous movements of legs/arms
- (5) unable to sit still for more than a few seconds

Yawning:
Observation during assessment
- (0) no yawning
- (1) yawning once or twice during assessment
- (2) yawning three or more times during assessment
- (4) yawning several times/minute

Pupil size:
- (0) pupils pinned or normal size for room light
- (1) pupils possibly larger than normal for room light
- (2) pupils moderately dilated
- (5) pupils so dilated that only the rim of the iris is visible

Anxiety or Irritability:
Measured after patient is sitting or lying for one minute
- (0) none
- (1) patient reports increasing irritability or anxiousness
- (2) patient obviously irritable or anxious
- (4) patient so irritable or anxious that participation in the assessment is difficult

Score:
- **5-12 = Mild**
- **13-24 = Moderate**
- **25-36 = Moderately Severe**
- **> 36 = Severe**

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