

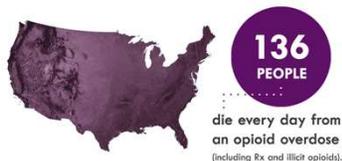
SHOOTING SUBOXONE-SHOOTING YOURSELF IN THE FOOT AND THE HEART

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Introduction

The U.S. is in the middle of an opioid epidemic.



One of the strategies to fight the opioid crises is medication assisted therapy (MAT). Suboxone is the combination of buprenorphine and naloxone. It is a unique formulation designed to prevent intravenous or intranasal abuse of buprenorphine.

Case Presentation

A 34-year-old female presented with fever, chills, and skin ulcer of 2 weeks duration.

She has history of heroin use disorder but has been clean and maintained on suboxone for the last 4 years with regular follow up and frequent urine drug tests.

She is happily married, works as a consultant for a multi-million-dollar company, and loves her job.

Initial lab evaluation showed markedly elevated ESR of 128, CRP of 16.6. Blood cultures grew *Pseudomonas Aeruginosa*, and the patient was started on cefepime and ciprofloxacin.

Echocardiogram showed vegetations involving the aortic valve with moderate to severe aortic insufficiency.

She underwent minimally invasive bioprosthetic aortic valve replacement via hemisternotomy.

The source for *Pseudomonas Aeruginosa* was suspected to be right hip wound. She later reported injecting suboxone for years over the right hip area. MRI of the hip showed no evidence of osteomyelitis or abscess.

She remained in the hospital to finish her IV antibiotics course. Her PICC line was removed, and she was discharged in stable condition.

Findings



Figure A 4x2 cm right hip wound: at the site of IV suboxone injection



Figure B Janeway lesions



Figure C TEE: Vegetation noted on the right coronary cusp (RCC). Possible perforation of the RCC leading to severe AI.

Discussion

Prescription opioid abuse is a serious and pervasive health crises. Abuse deterrent formulations like suboxone may be crucial in combating the opioid crisis.

Suboxone is used for the treatment of opioid dependence in the United States. This formulation has a significantly lower rate of abuse potential but is not immune to misuse and abuse.

Injecting suboxone would lead to a precipitated withdrawal in opioid dependent individuals except in patients maintained on buprenorphine or suboxone.

The ASAM defines addiction as a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences.

People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences

Conclusion

This case illustrates the complex nature of addiction.

Suboxone, a medication specifically designed to be an abuse deterrent, has the potential to be abused.

We need to further understand the neurobiological process of addiction and take advantage of this knowledge to test new targets for therapy.

The fight against addiction can only be won when our strategies reflect the full complexity of the disease.

Reference

Increases in Drug and Opioid-Involved Overdose Deaths - United States, 2010-2015. Rudd RA, Seth P, David F, Scholl L

Centers for Disease Control and Prevention (CDC). overdoses of prescription opioid pain relievers—United States, 1999–2008. *MMWR Morb Mortal Wkly Rep.* 2011 Nov 4; 60(43):1487-1492.

Designing Opioids That Deter Abuse Robert B. Raffa, 1 Joseph V. Pergolizzi Jr, 2, 3 Edmundo Muniz, 4 Robert Taylor Jr, 5 and Jason Pergolizzi

Schuster CR. Post-marketing surveillance for Suboxone and Subutex diversion. In: Harris LS, ed. *Problems of Drug Dependence 2005*