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Characteristics and Clinical Outcomes of IUD Insertion Under Conscious Sedation in Pediatric and Adolescent Patients

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INTRODUCTION

- The IUD is a highly effective method of contraception and menstrual control; however, it is severely underutilized in adolescent populations, with fear and pain being significant barriers.¹⁻³
- At CMH, IUDs are inserted in the clinic, in the operating room, or with the aid of conscious sedation in the radiology department. Our institution offers a choice between “light” and “moderate” conscious sedation for anxiolysis and analgesia during IUD insertion.

CMH's counseling options for pain management for IUD insertion!



- This study aims to identify the ideal candidate for IUD placement under conscious sedation

METHODS

- Single-site, retrospective cohort study from 3/2022 – 4/2023 (IRB STUDY 2778)
- Inclusion:** patients who desired IUD with conscious sedation and attended insertion appointment
- Exclusion:** those who were not a candidate for conscious sedation (BMI >40 or ASA III)

Characteristics and Clinical Outcomes of Adolescents Who Desired an Intrauterine Device (IUD) Using Conscious Sedation

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Over a year, 69 Patients attempted IUD insertion with conscious sedation at the Children's Mercy's Pediatric and Adolescent Gynecology Department



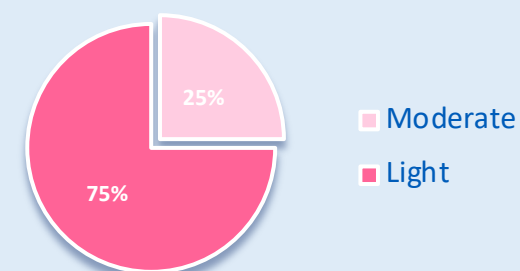
Characteristics of patients choosing light versus moderate sedation

	Light Sedation (N=52)	Moderate Sedation (N=17)	p-value
Mean Age (years)	16.3 ± 1.7	15.9 ± 1.5	0.35
	OR (95% CI, p-value)		
Gender Identity			
Cisgender	73.08% (N=38)	26.92% (N=14)	0.58 (0.15-2.33, 0.44)
Non-cisgender	82.35% (N=14)	17.65% (N=3)	
Tampon Use			
Tampon Use	80.00% (N=24)	20.00% (N=6)	1.57 (0.51, 4.89, 0.43)
No Reported Tampon Use	71.79% (N=28)	28.21% (N=11)	
Sexual Activity			
Sexually Active	95.24% (N=20)	4.76% (N=1)	10.0 (1.23-81.34, 0.031)*
No Reported Sexual Activity	66.67% (N=32)	33.33% (N=16)	
Sexual Assault			
Disclosed assault	66.67% (N=2)	33.33% (N=1)	0.64 (0.05-7.53, 0.72)
No disclosed assault	75.76% (N=50)	24.24% (N=16)	

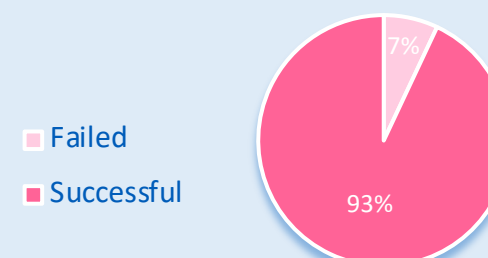
Characteristics of patients who had successful versus failed IUD insertion

	Successful Insertion (N=64)	Failed Insertion (N=5)	p-value
Mean Age (years)	16.3 ± 1.6	14.9 ± 2.2	0.06
	OR (95% CI, p-value)		
Gender Identity			
Cisgender	94.23% (N=49)	5.77% (N=3)	2.18 (0.33-14.28, 0.42)
Non-cisgender	88.24% (N=15)	11.76% (N=2)	
Tampon Use			
Tampon User	100.00% (N=30)	0% (N=0)	9.72 (0.52-183.18, 0.13)
Non-tampon User	87.18% (N=34)	12.82% (N=5)	
Sexual Activity			
Sexually Active	95.24% (N=20)	4.76% (N=1)	1.82 (0.19-17.32, 0.60)
No Reported Sexual Activity	91.67% (N=44)	8.33% (N=4)	
Sexual Assault			
Disclosed assault	66.67% (N=2)	33.33% (N=1)	0.13 (0.01-1.75, 0.12)
No disclosed assault	93.93% (N=62)	6.06% (N=4)	
Sedation Type			
Light	94.23% (N=49)	5.77% (N=3)	2.18 (0.33-14.28, 0.42)
Moderate	88.24% (N=15)	11.76% (N=2)	

Sedation Type Performed



Successful vs Failed Insertion



RESULTS

- 69 IUD insertions attempted**
- 75% light vs 25% moderate
 - 93% successful vs 7% failed insertions

Trends

- Young age and history of sexual assault were more likely to have failed insertion
- Gender identity did not influence choice of conscious sedation or success vs failure
- Sedation type did not impact insertion outcome

*Significant Finding

- Sexually active patients were 10x more likely to choose light sedation

DISCUSSION

Limitations

Retrospective analysis limits the ability to inquire about patients' decision-making process

Future directions

Prospective analysis of patients' pain perception for IUD insertion with both types of available conscious sedation

Identifying the characteristics and outcomes of teens choosing conscious sedation for IUD insertions can help provide a guide for future healthcare professionals to identify patients that have a higher chance of a successful IUD insertion.

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