National Trends of Assisted Reproductive Technology Cycles Without An Infertility Diagnosis: 2014 - 2021

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BACKGROUND

- The utilization of ART in patients without an infertility diagnosis continues to increase for a variety of indications
- Previous retrospective cohort studies have demonstrated IVF-conceived singletons had higher rates of preterm birth and low birthweight infants[1,2,3]
- A knowledge gap exists on whether similar effects are seen in IVF-derived pregnancies in patients without an underlying infertility diagnosis

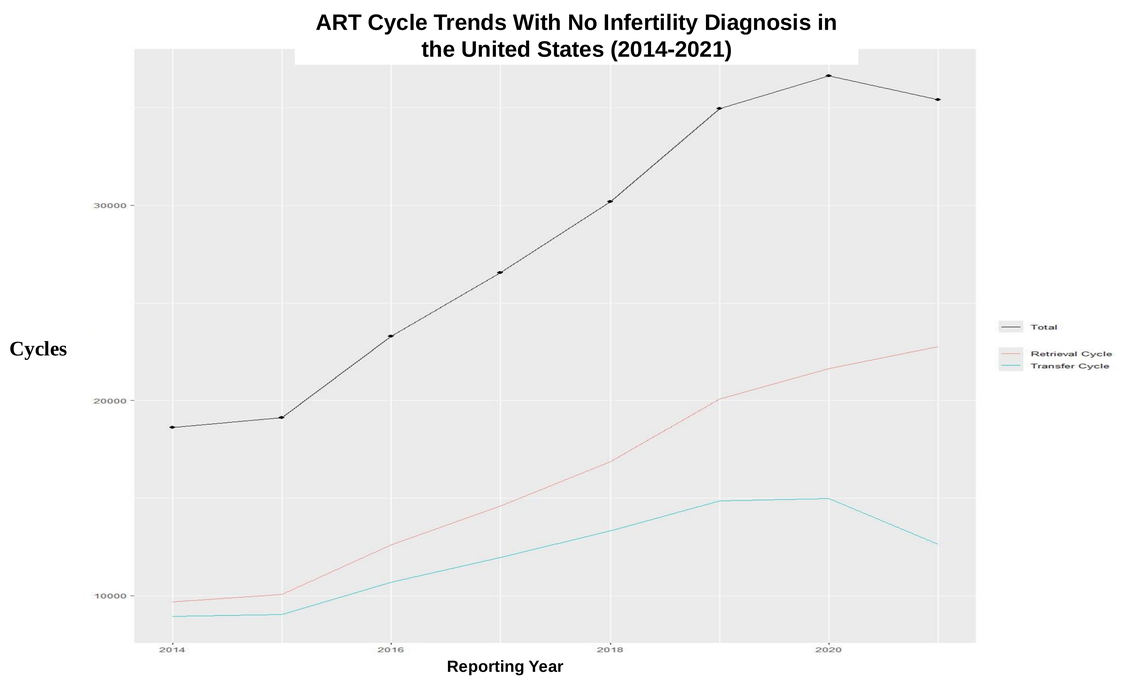
OBJECTIVES

- To describe the trends and perinatal outcomes of patients using ART without an infertility diagnosis in the United States from 2014-2021

METHODS

- Retrospective cohort study using SART data, 2014-2021
- Includes fresh and frozen autologous IVF cycles among nulliparous women without an infertility indication
- Comparison group collected from “Nulliparous Pregnancy Outcomes Study: Mothers-to-Be (nuMoM2b)”

RESULTS



Comparison of singleton pregnancy outcomes in nulliparous patients utilizing IVF for a non-infertility related indication to participants in the nuMOM2b Study.

	Fresh Embryo Transfers		Frozen Embryo Transfers		NuMoM2b Study	
	N = 27,557		N = 68,886		N=8,385	
	Crude Incidence	Adjusted Incidence[1]	Crude Incidence	Adjusted Incidence[1]	Crude Incidence	Adjusted Incidence[1]
Gestational Age						
Term	87.0%	85.3%	89.0%	89.2%	92.0%	90.1%
Pre-term	10.0%	11.5%	9.1%	8.9%	6.9%	8.0%
Very pre-term	2.3%	3.3%	1.9%	1.9%	1.1%	1.9%
Birthweight						
<2500 g	11.0%	13.0%	8.2%	8.2%	6.4%	7.9%
2500-4499 g	88.0%	85.5%	91.0%	90.6%	93.0%	90.9%
≥4500 g	1.1%	1.5%	1.3%	1.2%	1.0%	1.2%
Stillbirth	0.6%	0.3%	0.5%	0.3%	0.3%	0.3%

[1] Adjusted for age.

CONCLUSION

- The proportion of ART cycles without an infertility indication has continued to increase over time, due at least in part to increased utilization of embryo cryopreservation/banking, PGT-A/M, and donor sperm
- Among patients utilizing ART without an infertility indication, retrieval cycles have continued to steadily rise. Embryo transfer cycles slowed in 2021, potentially owing to increased use of oocyte and embryo banking
- Among singleton live births in this cohort, there were no significant differences in gestational age or birth weight between frozen embryo transfers and nulliparous patients in the nuMoM2b study

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