

EFFECT OF FEDERAL AND STATE ABORTION LEGISLATION ON ASSISTED REPRODUCTIVE TECHNOLOGY TRENDS: INCREASED UTILIZATION OF PREIMPLANTATION GENETIC TESTING FOR ANEUPLOIDY (PGT-A) IN PATIENTS <35 YEARS OF AGE

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Background: The Dobbs v. Jackson (“Dobbs”) Supreme Court decision on June 24, 2022 eliminated the federal constitutional right to abortion, while North Carolina Senate Bill 20 (SB20), passed on May 16th, 2023, limited abortion options for NC residents. Specifically, SB20 limits abortions to less than 12 –weeks' gestation and prohibits abortions at any gestational age for Trisomy 21. Preimplantation genetic testing for aneuploidy (PGT-A) is commonly recommended to patients 38 and older to improve the chance of a live birth per transfer (1). PGT-A utilization has also increased in younger patients (2), despite data demonstrating that it does not improve clinical pregnancy rates in this age group (3). Given the recent federal and state legislation limiting abortion access, we hypothesized that PGT-A utilization would increase in low-risk patients seeking to avoid aneuploid pregnancy.

Objective: We sought to characterize the change in utilization patterns of PGT-A in patients less than 35 years old during three different time periods relative to the enactment of abortion legislation in North Carolina.

Materials and Methods: This is a retrospective cohort study that included all autologous IVF cycles in patients less than 35 years old between May 2021 and September 2023 at a single academic fertility center in North Carolina. Patients were categorized into two groups: those pursuing PGT-A and those not pursuing PGT-A. PGT-A utilization rates were calculated for each of the three distinct time frames in question: Pre-Dobbs (May 2021- May 2022), Post-Dobbs/Pre-SB20 (July 2022-April 2023), and Post-Dobbs / Post-SB20 (June 2023-September 2023). The months of legislation enactment (June 2022, May 2023) were excluded. Chi-squared analyses were performed to compare the observed versus expected PGT-A utilization rates for each time period.

Result(s): 273 cycles were included for analysis; 112 Pre-Dobbs, 128 Post-Dobbs/Pre-SB20, and 33 Post-Dobbs/Post-SB20. The mean patient age was 31.4 years old. PGT-A utilization increased following each of the legislative acts (Table 1, p <0.01).

Table 1. PGT-A utilization in patients under 35 by legislative timeframe

| | NO PGT-A | PGT-A | PGT-A UTILIZATION RATE |
|----------------------|----------|-------|------------------------|
| PRE-DOBBS | 88 | 24 | 21% |
| POST-DOBBS/PRE-SB20 | 78 | 50 | 39% |
| POST-DOBBS/POST-SB20 | 17 | 16 | 48% |

Conclusion(s): In the last 28 months, which included the enactment of both federal and state abortion restrictions, the percentage of patients <35 years of age utilizing PGT-A at our center more than doubled. This represents an even steeper rise than the national trend of increased PGT-A among low-risk patients (2). Further research is needed to better characterize the potential factors underlying this trend such as patient preference for genetic screening in the setting of an increasingly restrictive abortion environment and changes in provider recommendations when counseling patients on the risks and benefits of genetic testing.

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References:

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