



PREIMPLANTATION GENETIC SCREENING (PGS) UTILIZATION IS INCREASED IN PATIENTS WITHOUT IN VITRO FERTILIZATION INSURANCE COVERAGE

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Objective: To determine if patients without insurance coverage for in vitro fertilization (IVF) are more likely to elect to pay out of pocket to have their embryos undergo PGS.

Design: Retrospective Cohort

Materials and Methods

Patients at a single IVF center from January 2011 to April 2017 who underwent their first IVF cycle were reviewed for this analysis. Patients utilizing preimplantation genetic diagnosis in conjunction with PGS, oocyte cryopreservation, and patients participating in IVF research where PGS was offered at no cost were excluded. Only patients with known insurance status were included. Patients were divided into those with IVF insurance coverage and those without IVF insurance coverage. PGS utilization was compared between the 2 groups. Analysis was performed using chi squared and student's t-test where appropriate. Logistic regression was used to account differences in patient age and antimullerian hormone level (AMH). An alpha error of 0.05 was considered significant.

Results

6537 patients were included in the analysis. Group 1 (those patients with IVF insurance coverage) included 4938 (75.5%) patients and group 2 (those patients without IVF coverage) included 1599 (24.5%) patients. There was no difference in the rate of IVF coverage when patients were stratified by the year they underwent IVF ($p=0.78$). Patients without insurance coverage were more likely to utilize PGS (54.1% v. 49.9%, $p=0.003$). When adjusting for factors that may influence the decision to utilize PGS (patient age and AMH) the odds of PGS utilization were still lower in patients with IVF coverage ($OR_{adj} 0.788 [0.700-0.887]$, $p<0.0001$). As expected, sustained implantation rate (number of ongoing gestations at 8 weeks / number of blastocysts transferred) is higher in patients that underwent PGS, $p=0.015$.

Conclusions

Patients without insurance coverage are more likely to pursue PGS. We hypothesize that patients who are paying out of pocket for in vitro fertilization opt to utilize PGS to improve their per cycle chance of conception, thereby optimizing the cost-effectiveness of their cycle.