

Impact of COVID-19 on invasive diagnostic prenatal testing

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Objective

To analyze the impact of the COVID-19 pandemic on the uptake and characteristics of invasive prenatal testing during the COVID-19 pandemic.

Methods

A retrospective study of prenatal invasive tests performed between January 2018 and December 2022. Data on referral reason, gestational age at the time of testing, type of prenatal invasive test, and test results were recorded. To account for yearly variability the pandemic cohort (COV, 2020) was compared to the averaged results of the two previous (pre-COV, 2018-2019) and subsequent years (post-COV, 2021-2022).

Results

The number of procedures/year was significantly higher in the pre-COV group and the post-COV groups (pre-COV 89/year, COV 47/year, post-COV 78/year, $p < 0.001$). The distribution of the type of procedure (% chorionic villous sampling: pre-COV 39%, COV 40%, post-COV 42%, $p = 0.913$) and gestational age at the procedure was similar in the three groups (pre-COV mean 18.6 weeks (standard deviation 7.3), COV 18.3 (7.0), post-COV 19.2 (8.3), $p = 0.653$). The distribution of referral reasons are depicted in Figure 1. Rate of abnormal results in Figure 2.

Conclusions

During the COVID-19 pandemic, there was a significant decrease in the number of prenatal invasive tests performed in our hospital compared to previous and subsequent years, with no change in the type of procedure performed.

Distribution of referral reasons were significantly different during the COVID-19 pandemic and the rate of abnormal genetic test results was higher during the COVID-19 pandemic compared to previous years. However, it did not decrease after the pandemic, likely due to the shift in procedure indications.

Figure 1 - Distribution of referral reasons for prenatal invasive testing $p = 0.005$

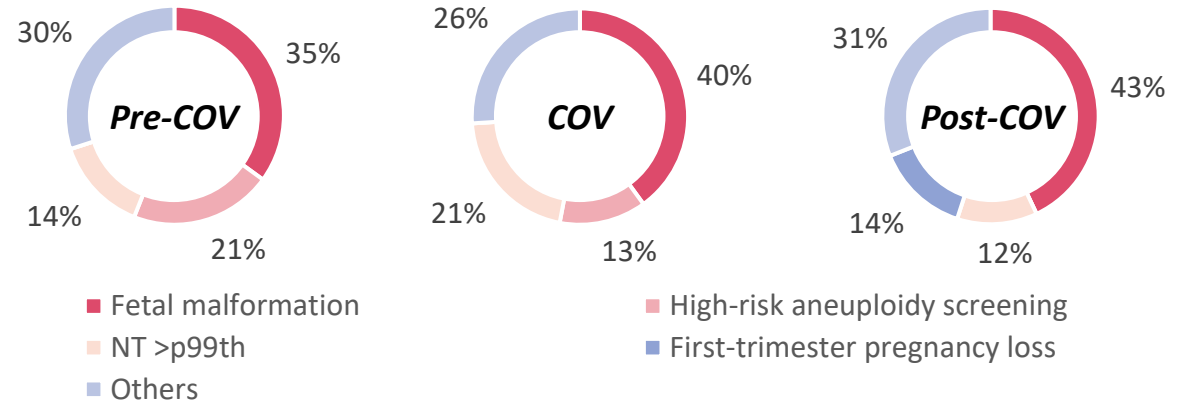


Figure 2 - Rate of abnormal genetic results / # of procedures per year $p < 0.001$

