

EP04.11 HYSTERO-SALPINGOGRAPHY WITH FOAM SONOGRAPHY (HYFOSY) LEARNING CURVE: CONSISTENT DECREASE IN TOTAL PROCEDURE TIME AND EARLY ACQUISITION OF PROCEDURAL QUALITY

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Objectives: To assess the learning curve of implementing the hystero-salpingo-foam-sonography (HyfoSy) procedure.

Methods: Retrospective cohort study of HyFoSy examinations in a single center.

Group A - early exams - the first 100 patients,

Group B - later exams - the subsequent 100 patients.

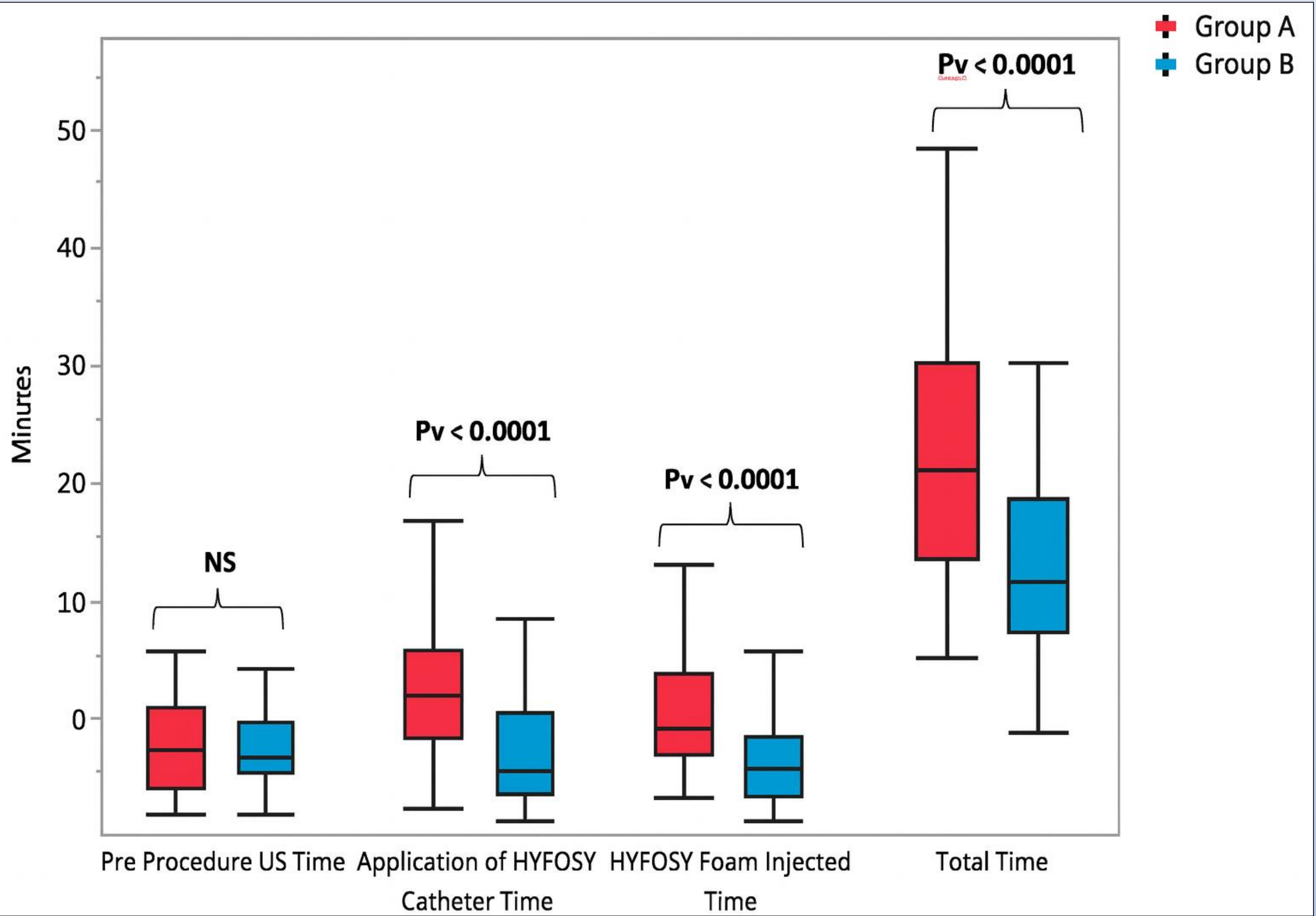
The HyFoSy procedure included 2D and 3D transvaginal ultrasound to evaluate the uterus, ovaries, and pelvis, as well as to assess the patency of the fallopian tubes following the injection of HyFoSy foam.

The **total procedure time (TPT)** included:

- The pre-procedure ultrasound time,
- The catheter application time in the uterine cervix,
- The foam injection time

All were compared between the two study groups. A linear regression analysis was conducted for the TPT over the entire study period.

To assess exam quality, the original operators' interpretations of tubal patency were compared to the retrospective analyses of two experienced reviewers, who served as the gold standard.



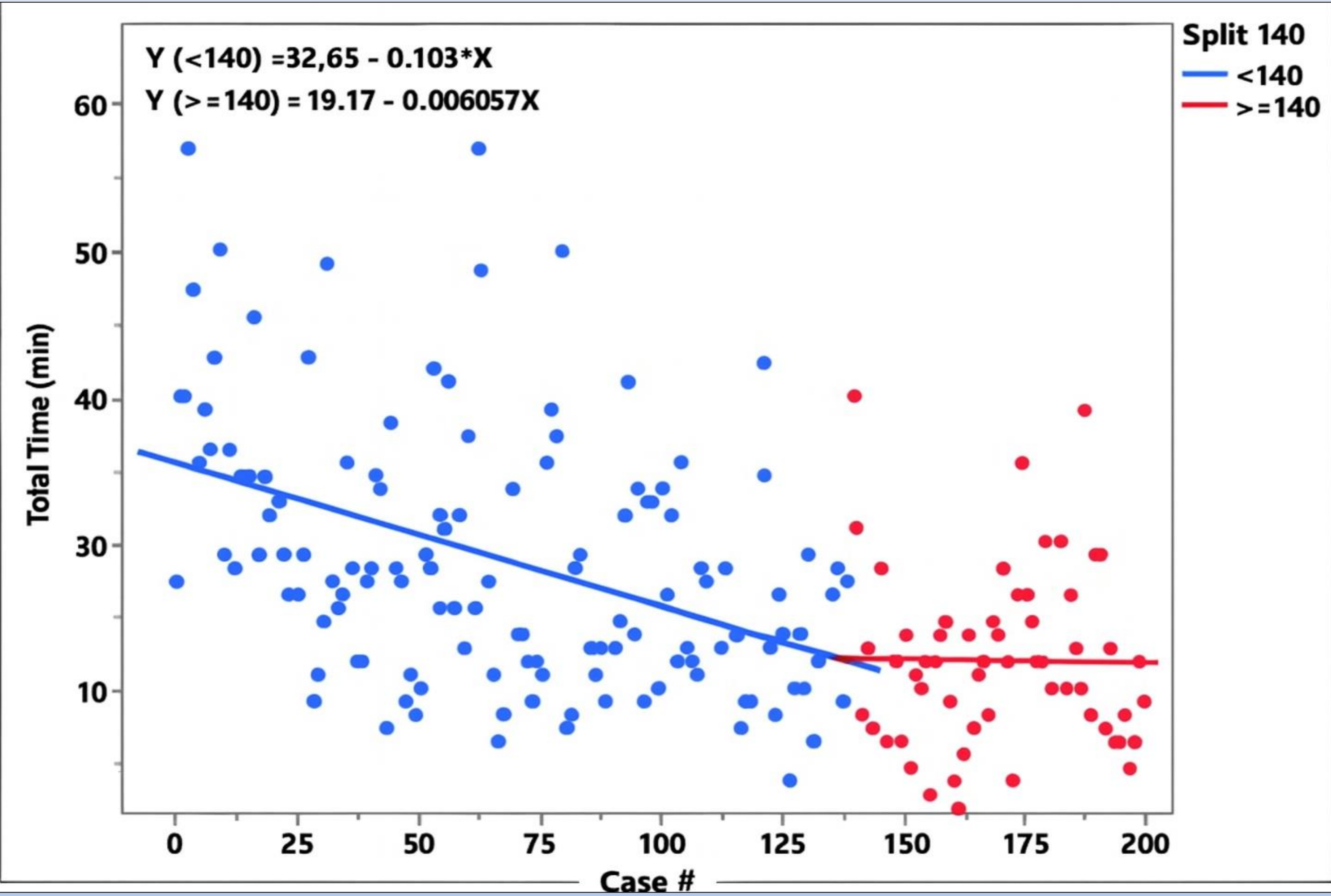
Results:

The time for catheter application in the uterine cervix and the time of foam injection steps were both significantly shorter in Group B than in Group A: 6.6 ± 4.5 vs. 10.8 ± 6.7 ($P < 0.001$) and 5.6 ± 3.1 vs. 9.8 ± 5.5 ($P < 0.001$) minutes, respectively.

TPT was significantly shorter in Group B (later) than in Group A (earlier) exams, 19.2 ± 6.8 vs 27.4 ± 10.2 minutes, respectively ($p < 0.001$).

The mean reduction in TPT for Group B was 8.16 ± 8.66 minutes, reflecting a 30% decrease compared to Group A ($p < 0.01$).

Results: A linear regression analysis revealed a significant and consistent decline in TPT over the first 140 procedures. The initial TPT of 32.65 decreased to a plateau of 19.17 minutes at a rate of 1 minute for every 10 exams ($p < 0.001$).



Results: Notably, accuracy and positive and negative predictive values across all study cohorts were 91.8%, 94.4%, and 91.2%, respectively, with no significant differences between the two study groups.

Conclusions: HyFoSy's learning curve showed a consistent, significant decrease in the TPT until plateau, after a relatively short period, while the quality of evaluation demonstrated an early acquisition of procedure quality, indicating that implementing the HyFoSy procedure is an accessible and efficient process.