

Certificate of Attendance

We hereby confirm the participation at the:

**36th European Congress of Pathology
7 - 11 September 2024, Florence, Italy**

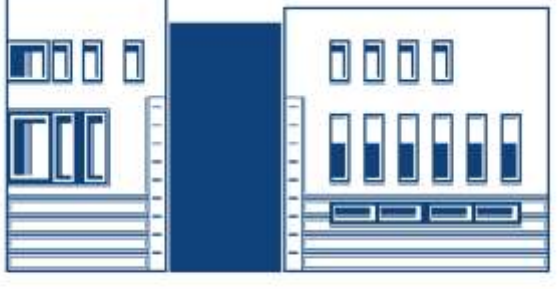
Mr.
Adam Ferenczi
University of Szeged
Department of Pathology
Állomás street 1
6722 Szeged
Hungary

Berlin, 09/13/2024

On behalf of the Organiser

CPO HANSER SERVICE

Organiser: European Society of Pathology
Square De Meeûs 18
1000 Brussels
Belgium



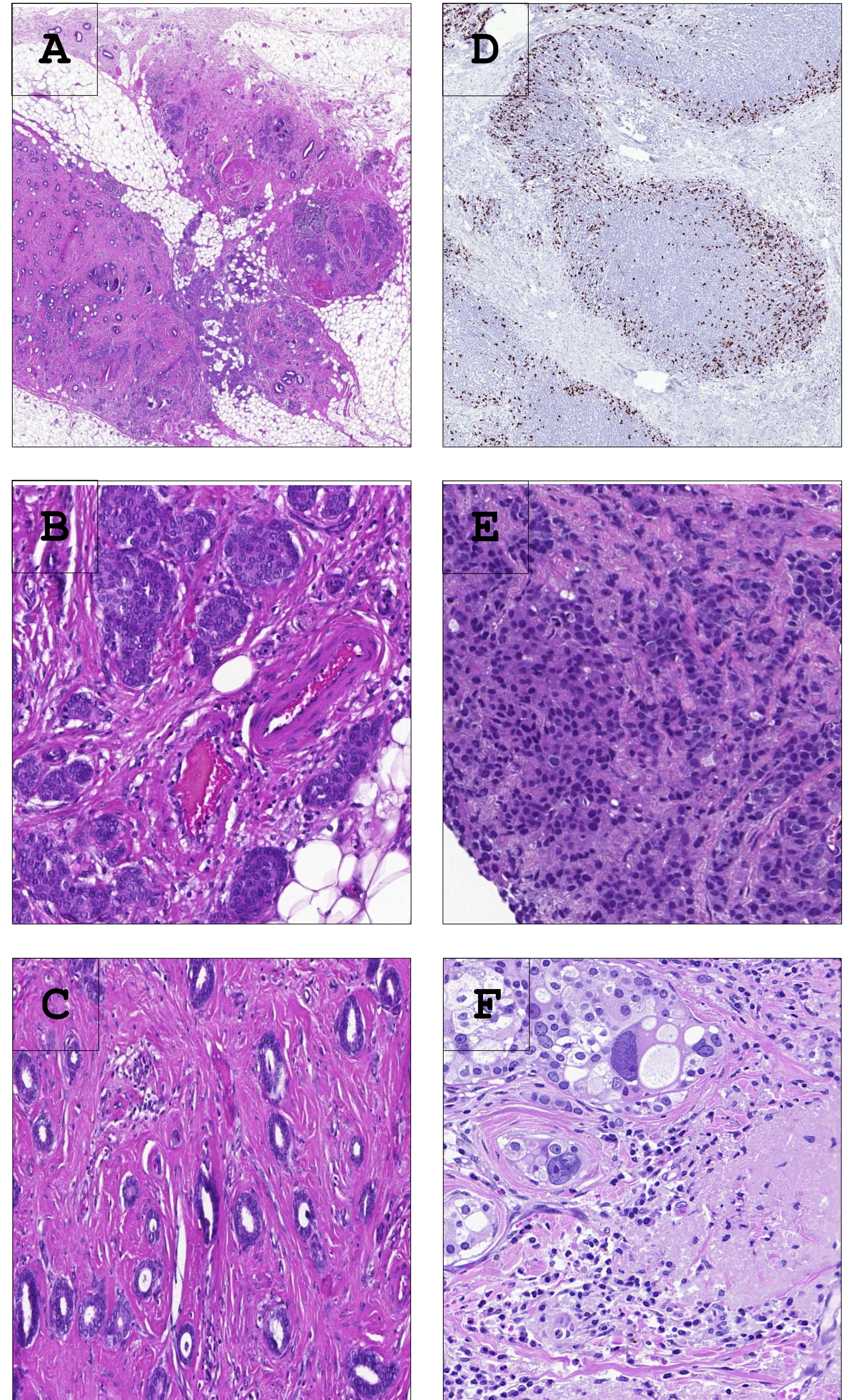
Changes in breast cancer grade from biopsy to excision following surgery or primary chemotherapy

Ádám Ferenczi¹, Gábor Cserni^{1,2}

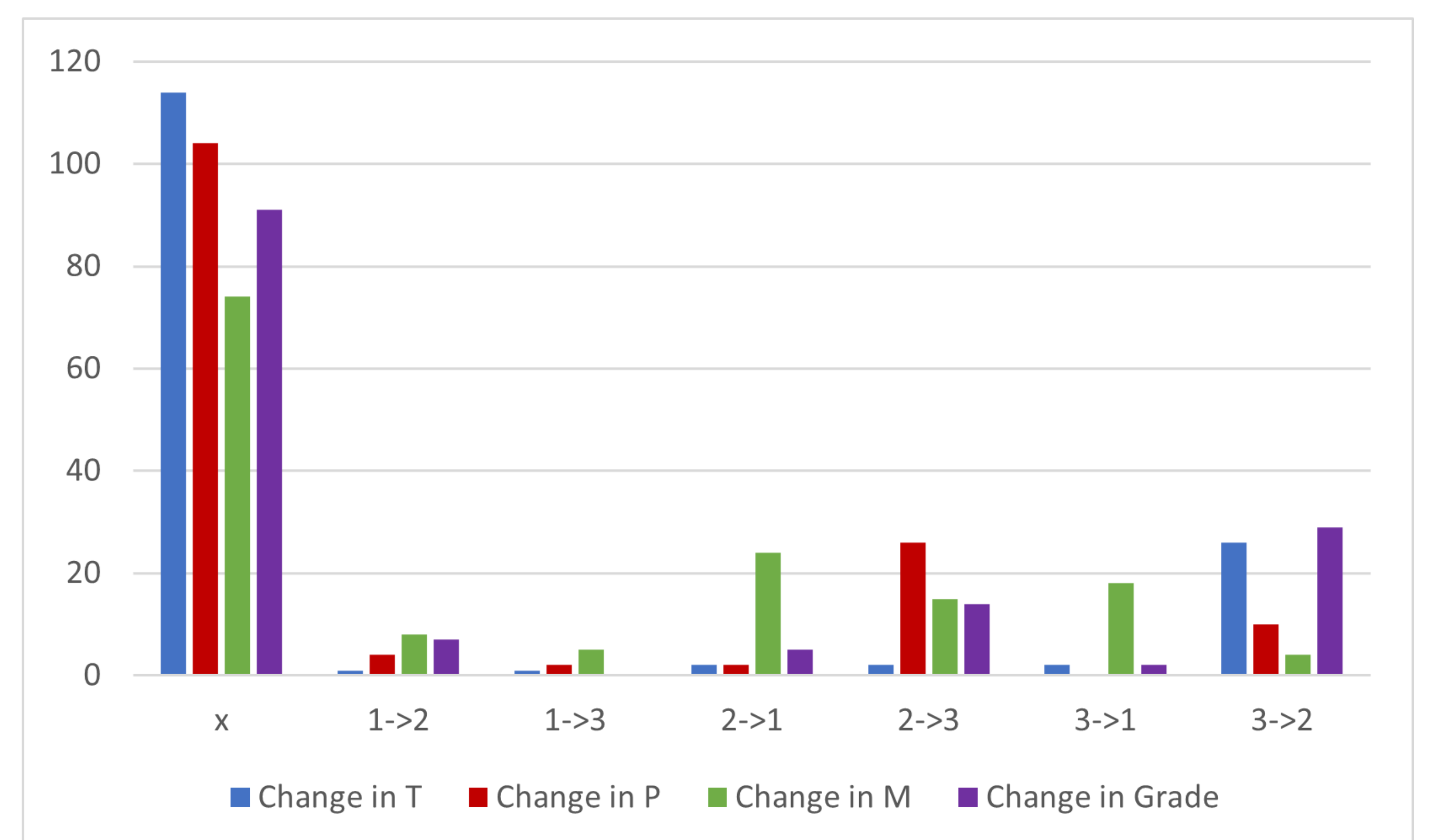
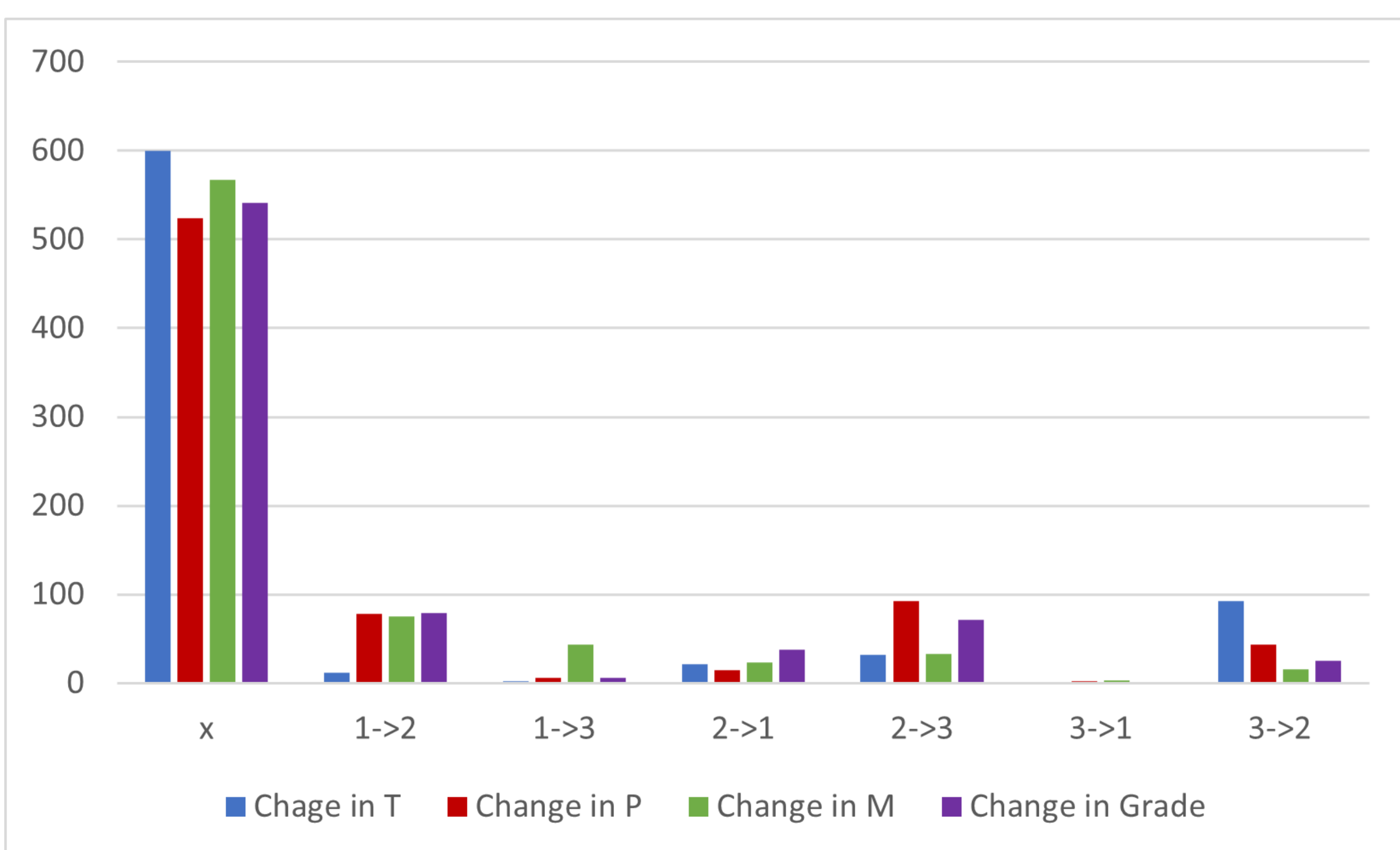
1: Department of Pathology, University of Szeged, Szeged, Hungary

2: Department of Pathology, Bács Kiskun County Teaching Hospital, Kecskemét, Hungary

- Objective: To compare histological grade (G) of breast cancer and its components (scores for tubule formation - T, nuclear pleomorphism - P and mitotic counts - M) in core needle biopsies (CNBs) and surgical excision specimens (EXC) in patients treated by primary surgery (CHIR) or primary chemotherapy (PST).
- Methods: Grade of matched pairs of carcinomas in CNB and EXC was assessed according to the Nottingham grading system.
- Results: PST cases tended to have higher pretreatment G. Concordance rates in the CHIR (n=760) and PST (n=148) groups for T, P, M and G were 79%, 70%, 75%, 71% and 77%, 70%, 50%, 62%, respectively; differences in concordance rates were significant in M ($p < 0.0001$) and G ($p = 0.024$). For discordant cases in the CHIR group, CNBs tended to overestimate T and underestimate P, M and G, whereas in the PST group, the same trends were identified for T and P, but there was a significant tendency for M and G to be lower in EXC specimens.
- Conclusions: The reversal of M and G underestimation in CNB to “overestimation” in the PST group can only be explained with the effect of mitosis reduction following chemotherapy. Whether the posttreatment decrease in G reflects any prognostic value remains to be elucidated.



A-C: Mixed tubular carcinoma; A: x2, right side with less than 10% gland formation (B: x20) and left side with 100% tubule formation characteristic in tubular carcinoma (C: x20). D: A Ki67 immunostain highlighting inhomogeneity and zonal distribution of the cells in the cell cycle, a zonation that may also characterize the distribution of mitotic figures (Ki67, x5). E-F: The same tumor before chemotherapy in the core needle biopsy and after chemotherapy in the excision, with P scores 2 and 3, respectively (x30).



Changes in the values of T, P, M subscores and grade (G) from CNB to EXC in the two patient groups (A: CHIR and B: PST groups)



36th European Congress of Pathology
7 – 11 September 2024
Fortezza da Basso, Florence, Italy