

Microwave Tissue Dehydration

A Fast and Reliable Tissue-Processing Method in Pathology

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OBJECTIVE: To compare the histologic quality of tissues processed with rapid microwave tissue dehydration and traditional tissue dehydration.

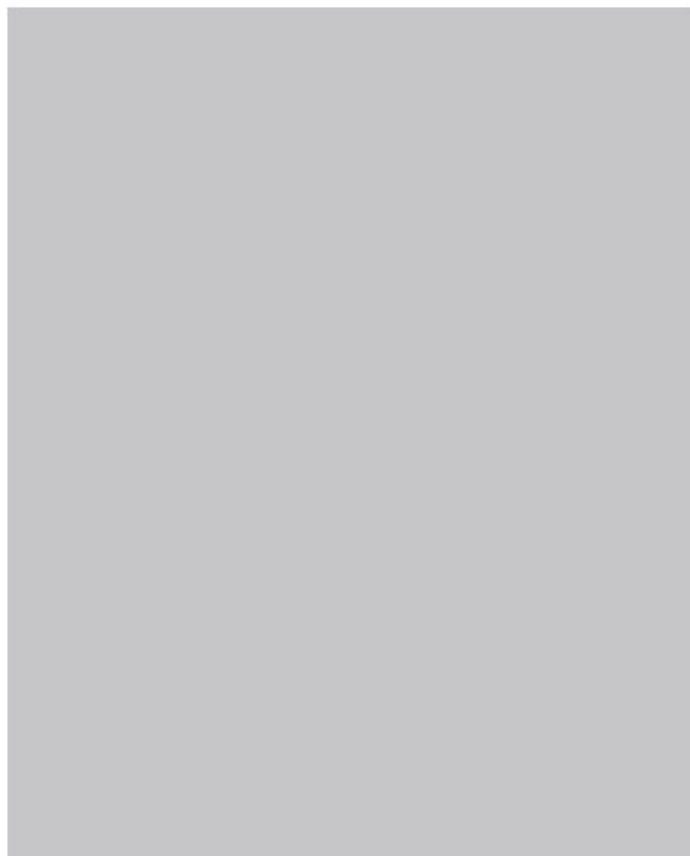
STUDY DESIGN: A total of 200 paired tissues from 15 organs were taken and divided into 2 groups. One group was processed with rapid microwave tissue dehydration, and the other one was processed with traditional tissue dehydration. Hematoxylin and eosin (H&E), immunohistochemical (IHC), and in situ hybridization (ISH) staining were conducted, and the staining qualities were compared carefully. Evaluation of blocks, H&E stain, IHC stain, and ISH were carried out.

RESULTS: The quality of blocks and H&E stain showed no distinction. The IHC signal-positive location, percentage of positive cells, grades of intensity, and the staining background showed a very high concordance between the 2 groups. The ISH results show no distinction from each other. Moreover, microwave tissue dehydration is time-saving.

CONCLUSION: As a rapid and reliable tissue processing method, microwave tissue dehydration may potentially be useful when rapid pathological diagnosis is needed. (Anal Quant Cytopathol Histopathol 2018;40:63–68)

Keywords: conventional tissue processing, histology, histotechnology, immunohistochemistry, mi-

crowave tissue dehydration, rapid tissue processing, staining, tissue stains, tissue.



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