

عنوان مقاله:

A Simplified Method of Manually Constructing Small Format Tissue Microarray for Use in Resource-Constrained Settings

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خلاصه مقاله:

Background & Objective: Tissue microarray (TMA) is a method of harvesting small tissue cores from a number of donor paraffin tissue blocks and arraying them in a recipient paraffin block. It has numerous advantages and applications but is expensive. This study aimed to develop a simple yet efficient method of manual, small-format TMA block construction. **Methods:** Disposable skin punch biopsy needles were used to manually core out ۴-mm cylinders from the archival donor blocks comprising tissue from ۶۰ thyroidectomy specimens. These cores were oriented in the embedding cassette in accordance with the grid design. The molten wax was slowly dispensed and allowed to be set. Sectioning, mounting, and hematoxylin and eosin (H&E) staining were performed by a conventional method. Immunohistochemical studies, using HBME-۱, CK۱۹, and S۱۰۰ antibodies, were also performed on these tissue array sections. **Results:** There was no core loss during processing. Technical issues like core tilt and floatation were easily tackled. Morphological identification, histological typing, and immunohistochemical analysis could be satisfactorily performed in these TMA sections. Donor blocks did not break after punching. **Conclusion:** This TMA construction method is simple, feasible, easily reproducible, and time-saving. It can serve as an excellent cost-effective alternative for resource-poor laboratories for carrying out immunohistochemical studies.

کلمات کلیدی:

Core flotation, Core tilt, skin punch biopsy needles, Tissue microarray

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