

Oral presentation

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Paraffin tissue microarrays constructed with evenly long paraffin tissue core biopsies

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Aims

Paraffin tissue microarrays (PTMAs) are blocks of paraffin with up to 1,000 paraffin tissue core biopsies (PTCBs). The construction of PTMAs consists of putting PTCBs from so-called donor blocks into preformed holes of so-called recipient blocks, the later PTMAs. Normally, paraffin tissue blocks of daily pathological work are used as donor blocks. However, these blocks have been already cut and contain tissues of different thickness. Therefore, the PTCBs punched out of these paraffin blocks are of different length. In consequence, the sections of the deeper portions of the PTMA don't contain all of the desired PTCBs thereby diminishing the incredible efficacy of the PTMA technique.

Methods

To overcome this drawback and to cut the PTCBs to a certain length, we manufactured a cutting board out of lucent polystyrene glass with a thickness of 4 mm. Holes were drilled into this board which were filled completely by at least one PTCB. The excess length of those PTCBs which stand over the surface of the cutting board were cut with a sharp knife. These cut parts were installed again in other holes of the cutting board or stored in microtubes for further PTMAs or other investigations like morphological-independent PCR. Then the PTCBs were injected from the cutting board into the holes of a PTMA using a stylet.

Results and conclusions

Thereby a PTMA was constructed with evenly long PTCBs, ensuring that the first and the last section of the PTMA contained nearly all of the PTCBs. Using a Beecher paraffin tissue punch with a countersink, it seems also possible to inject the PTCBs from the cutting board into the

Beecher punches and to construct PTMAs with the widely distributed Beecher system.