



ORAL PRESENTATION

Facilities of a novel tissue fixation method: the HOPE-technology

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We introduced an alternative and novel tissue fixative and compared it to conventional formalin fixation. Besides different stains used in routine diagnostics including histochemistry as well as immunohistochemistry we focused on molecular pathology. The latter gives many obstacles when using formalin fixed paraffin embedded tissue (FFPET), and many of the modern molecular techniques can even only be achieved on fresh or frozen specimens in the past and not on FFPET. In our repertoire many common molecularbiological techniques on the nucleic acid level (RNA and/or DNA) of HOPE fixed and paraffin embedded tissues were compared to formalin fixation as well as to fresh and/or frozen material.

As a resume we have shown that the Hope technique results in a comparable morphological preservation to formalin fixation (up till now for more than ten years experience); furthermore that DNA, RNA and proteins are protected. Thus the HOPE technique permits a succesfull application of all molecular techniques such as in situ hybridization targeting either DNA or RNA, immunohistochemistry without antigen retrieval and for formalin-refractory antigens, PCR, RT-PCR, Western blot, Northern blot, and transcription microarrays etc.

Taken together, the HOPE technique to date represents the best alternative fixation that is well applicable to tissue specimens by preserving an excellent morphology in contrary to other procedures, and is well documented and broadly scientifically analyzed. Therefore by the HOPE-technology new possibilities are opened up especially within the rapidly growing field of molecular pathology.

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