

# Histopathological and cytological diagnostics: a view from Russia

## Histologische und zytologische Diagnostik: ein Blick aus Russland

### Abstract

In the former Soviet Union, pathologists usually do not examine cytological specimens. Cytology belongs to another field of practice: laboratory medicine. Not all cytologists find enough time to compare their reports with histopathological ones, while histological and cytological specimens are hardly ever confronted; this opportunity of quality control is therefore lost. There are no nationwide programs of cervical cancer prevention. There are almost no laboratory technicians for screening of cytological smears. Overall, there are grounds for optimism: the improved economy makes it possible today to acquire modern equipment and literature, while broadening international co-operation is already attracting foreign expertise into the country.

**Keywords:** cytology, biopsy, cervical smears, postgraduate training, Russia

### Zusammenfassung

In Russland untersuchen die Pathologen gewöhnlich kein zytologisches Material. Die Zytologie gehört zu einer anderen medizinischen Fachrichtung – der Labormedizin. Nicht alle Zytologen finden Zeit genug, ihre Berichte mit den Biopsieergebnissen zu vergleichen, so dass diese Möglichkeit der Qualitätssicherung verloren geht. Die Zervixabstriche werden relativ selten genommen, meistens nach Romanovski-Giemsa gefärbt und von keinen MTA vorgemustert. Bei alledem, gibt es heute Gründe für den Optimismus: die sich bessernde ökonomische Lage bietet Möglichkeiten, neue Geräte und Reagenzien zu importieren, und die sich vertiefende internationale Kooperation wird die ausländische berufliche Erfahrung ins unser Land fließen lassen.

**Schlüsselwörter:** Zytologie, Biopsie, Zervixabstriche, Weiterbildung, Russland

### Text

In many countries both histological and cytological examinations are performed by pathologists. In the former Soviet Union, pathologists usually do not examine cytological specimens. Cytology belongs to another field of practice: laboratory medicine. Such sub-specialization can be reasonable under the circumstances of shortage of foreign professional literature and the postgraduate training of relatively short duration [1], because it enables a specialist to be more confident on a narrower field. At the same time, this situation is associated with disadvantages. Some cytological smears, especially those of fine needle aspirations, can contain tissue fragments, evaluation of which requires application of histopathological criteria. Histological specimens can also include solitary

cells or cell groups, evaluation of which requires some expertise in cytology. During the post-graduate training in pathology in the Soviet Union, we were taught not to make any conclusions about malignancy on the basis of detritus not containing preserved tissue. Later practice has shown that a cancer can be diagnosed in the presence of only 2–3 cells, on condition that one is sure, that it is not a contamination (a "floater"). Certainly, a conclusion about malignancy on just two or three cells out of the tissue context is always a great challenge; the cells can come, for example, from an area of dysplasia. A conclusion depends sometimes on localization and the method used. Having a small number of suspicious cells, it is especially difficult to rule out a contamination. Therefore it is so important to rinse the instruments and the board for gross dissection with flowing water, opti-

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mally after each case, which is done not always by far. Because of the risk of overdiagnosis and overtreatment in consequence of cross-contamination by floaters, a re-biopsy can be indicated in some cases.

Cytologists and pathologists practice in Russia separately from each other, often in different departments. Not all cytologists find enough time to compare their reports with histopathological ones, while histological and cytological specimens are hardly ever confronted. Comparisons of cytological and histological specimens have, however, great significance because of the relatively high percentage of inconclusive reports in cytology (the so-called grey zone), when only a suspicion can be expressed. The histocytological correlations is a potential field of research of great practical significance for the countries of the former Soviet Union, the more so as no sophisticated equipment and expensive reagents are necessary for that. In conclusion, the Papanicolaou test for the screening of cervical cancers should be mentioned, which is made in Russia relatively seldom [2]. There are no nationwide programs of cervical cancer prevention. During Soviet time, medical examinations (so-called dispenserizations) were performed more or less regularly at some factories and institutions. The attitude to the dispenserizations was often formal; cervical smears were taken but predominantly for bacteriological diagnosis. Today, coverage of the population by medical check-ups has decreased. Foreign literature, especially foreign handbooks and atlases of cytology are seldom on working places. There are no laboratory technicians for screening purposes in many institutions. Accordingly, cervical cancer is diagnosed in the former Soviet Union on average at a relatively advanced stage [3]. Overall, however, there are grounds for optimism: the improved economy makes it possible today to acquire modern equipment and literature, while broadening international co-operation is already attracting foreign expertise into the country.

## Notes

## Conflicts of interest

None declared.

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