

4



Normal cervical cytology

Andrew Evered



Summary

- Cytology is an established method of detecting neoplastic cells in the cervix.
- Despite the advent of molecular techniques and vaccination strategies to combat infection by high-risk types of human papillomavirus, cytology remains important in the fight against cervical cancer for many years to come.
- An understanding of the normal anatomy, physiology, histology, and cytology of the female genital system is a necessary prerequisite for the identification of neoplastic cell changes in cervical samples.
- The correct identification of cells depends on the accurate interpretation of a number of morphological features, including nuclear shape and size, intensity of nuclear staining, and NCR. Chromatin pattern and chromatin distribution are of fundamental importance in distinguishing normal from neoplastic cells.
- Hormonal variations, metaplasia, inflammation, iatrogenesis, and non-epithelial cells can all confound the microscopical interpretation of cells.
- Several types of microorganisms can be identified in cervical samples, but in most instances their relevance is determined by the clinician, not the cytologist.
- Whilst it is important for cytologists to recognize the signs which might indicate that a cervical sample has been improperly taken, the primary responsibility for determining specimen adequacy rests with the person who takes the sample.