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Cytology of urine

Behdad Shambayati



Summary

- Cytological evaluation of urine can detect most high-grade urothelial cell carcinomas which may arise anywhere in the urinary tract.
- Criteria for diagnosing low-grade urothelial carcinoma lacks specificity and may lead to false positive diagnosis.
- Cytology may identify some infective agents; cytologists in particular should beware of cell changes due to polyomavirus infection, as these can mimic high-grade urothelial carcinoma.
- 'Casts' may be identified in cytological preparations and may be conservatively reported.
- Specimen collection procedures do affect the presentation of cells and cytologists should consider this when assessing a urine sample.
- Iatrogenic changes can affect cell presentation and cytologists should adjust their diagnostic criteria to avoid a false positive diagnosis.