Cite this as: Ye-li YAO, Qi-fang TIAN, Bei CHENG, Yi-fan CHENG, Jing YE, Wei-guo LU, 2017Human papillomavirus (HPV) E6/E7 mRNA detection in cervical exfoliated cells: a potential triage for HPV-positive women. *Journal of Zhejiang University-Science B (Biomedicine & Biotechnology)*, 18(3):256-262. http://dx.doi.org/10.1631/jzus.B1600288

Human papillomavirus (HPV) E6/E7 mRNA detection in cervical exfoliated cells: a potential triage for HPV-positive women

Key words: Human papillomavirus (HPV), HPV E6/E7 mRNA, High-grade squamous intraepithelial lesion (HSIL)

Research Summary

The present study was designed to explore whether HPV E6/E7 mRNA detection in cervical exfoliated cells can be a potential triage for human papillomavirus positive women from a clinic-based population.

Innovation points

- A total of 404 eligible HPV-positive women were enrolled.
- Positive rate of E6/E7 mRNA in high-grade squamous intraepithelial lesion (HSIL) cases was higher than in low-grade squamous intraepithelial lesion (LSIL) or normal cases.
- No statistical difference between E6/E7 mRNA and cytological testing with sensitivity, specificity, positive predictive value and negative predictive value for detecting ≥HSIL.
- HPV E6/E7 mRNA detection in cervical exfoliated cells shows the same performance as Pap triage for HSIL identification for HPV-positive women

Innovation points

A series of comprehensive tables and figures were generated to summarize the data of this research.

Table 1| Cytologic and histologic diagnosis.

Table 2| HPV E6/E7 mRNA detection results in different histological groups.

Table 3| Concordance between HPV E6/E7 mRNA assay and cytological test.

Table 4| Correlation of E6/E7 mRNA and cytology with histological diagnoses.

Fig. 1| The receiver operating characteristic (ROC) curve of E6/E7 mRNA for detecting HSIL+.