

Prevalence of *Ureaplasma Urealyticum* in Ovarian or Cervical Cancer

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Introduction: *Ureaplasma urealyticum* (*Uu*) is an established pathogen of the human genital tract, as one of the etiological agents of non-gonococcal urethritis. However, subspeciation of isolates of *Uu* may allow differentiation between virulent or avirulent strains. Chan et al reported that mycoplasma conserved DNA were present in 59.5% of the malignant ovarian cancer tissue by mycoplasma universal primer PCR. The oncogenic potential of mycoplasmas was only recently carefully realized when they were shown to cause chromosomal changes and in vitro cell transformations through gradual progressive chromosomal loss and translocation. Few studies have been reported the prevalence of mycoplasma infection in human cancers and suggested that there was an association between these organisms and human cancers. The objective of this study was to determine the relationship between *Uu* infection and cervical cancer. In the *Uu* positive cases, U3 and U8 biovar were tested with the paraffin blocked tissues by insitu RT PCR analysis using promoters from the known sequences by Robertson JA et al, 1993.

Materials and Methods: We examined the 99 cervical or ovarian cancer tissues and the 27

myoma tissues from patients by culture and PCR analysis using primers from the known sequences (U1: 5'-CCAGGAAAAGTAGTACCAGGAGC, U2: 5'-CTCCTAATCTAACGCTATCACC (Teng K et al, 1994). Insitu RT PCR analysis using promoters from the known sequences (U3: 5'-TAGAAGTCGCTCTTTGTGG; U8: 5'-GAAGATGTAGAAAGTCGCGTTTGC, P6: 5'-GGTAGGGATACCTTGTTACGACT (Robertson, 1993).

Results: In this study, *Uu* was detected in 3/27 (11.1%) by culture and in 2/27 (7.4%) by PCR of the 27 myoma tissues, and in 21/99 (21.2%) by culture and in 12/99 (12.1%) by PCR of the 99 cervical or ovarian cancer tissues. In the *Uu* positive cases of the patients with cancer, 19/20 (95%) cases were detected U3 positive and 9/20 (45%) cases were detected U8 positive.

Discussion: The association between mycoplasmas and malignant cell transformation was also reported by Zhang B et al. However, the association between *Uu* and cervical or ovarian cancer could not be made in this study, but if *Uu* may be associated with these cancer, U3 biovar *ureaplasma* infection was important factor than U8 biovar infection.