4 A clinicopathologic study on the relationship of human papillomavirus infection to squamous cell carcinoma of the vulva using polymerase chain reaction and in situ hybridization. T. Toki, Dept. of OB/GYN, Hachinohe City Hospital, Aomori.

A pathologic and molecular virologic analysis of 30 cases of invasive squamous cell carcinoma of the vulva was undertaken to investigate the relationship of human papillomavirus (HPV) to this neoplasm. The presence of the virus was detected by polymerase chain reaction and by in situ hybridization in paraffin sections of vulvectomy specimens. The cases were histologically subclassified as typical squamous cell carcinoma (Sq), basaloid carcinoma (Bas), and warty carcinoma (War). Sq shows varying degrees of squamous maturation whereas Bas is characterized by immature basal-type cells showing minimal squamous maturation, and War displays an exophytic appearance with definite koilocytotic change. Overall, HPV 16 was detected in 11 cases and HPV 18 in three; none of the cases were positive for HPVs 6/11. HPV was detected in four (21%) of 19 Sq, six (75%) of eight Bas and three (100%) of three War carcinoma. The mean age of women with HPV negative tumors was 77 years compared to 55 years for women with HPV positive tumors ($p < 0.01$). Thus, there appears to be a close correlation between the presence of HPV and specific subsets of invasive squamous cell carcinoma of the vulva.

5 Human papilloma virus 16 and 18 infection in cytological normal cervices by PCR ( Polymerase Chain Reaction ) method. J.Saito, H.Nakatani, M.Sumiyoshi, T.Fukuda, M.Ikeda, K.Noda, Dept.Obst.and Gynec., Kinki Univ. Sch. Med., Osaka.

To evaluate a link between Human papilloma virus ( HPV ) and neoplasia, we appled PCR method to detect HPV 16 and 18 DNA in cervical exfoliated cells obtained from healthy woman. First of all, we compared Vira-Pap Kit with PCR method. In 8 of 237 patients with no HPV DNA-Vira Pap Kit negative , HPV 16 and 18 were detected by PCR method. PCR test is more sensitive than Vira-Pap Kit. In 11 of 249 ( 4.8% ) patients with no cytological lesion, HPV 16 ( 6 cases ) and HPV 18 ( 6 cases ) were found on testing with PCR. In addition, positive signals for both HPV 16 and 18 were found in specimens from one healthy woman suggesting double infection of HPV 16 and 18. The present study showed that subclinical HPV infection was observed in healthy women. Therefore, the surveilant study of HPV infection is important to understand the role of HPV in cervical carcinogenesis.

6 Detection of human papilloma virus in cervical carcinoma and cervical intraepithelial neoplasma by polymerase chain reaction. F.Eguchi, H.Mohtai, K.Shirakawa, M.Kikuchi*, Dept.Obst.and Gynec., *Dept.1st Path., Fukuoka Univ. Sch. Med., Fukuoka

Human papilloma viruses(HPV) are associated with neoplastic lesions of the uterine cervix. Paraffin embedded cervical scraps from 319 women were tested for the presence of HPV DNA using the polymerase chain reaction(PCR) for purpose of retrospective investigation. The PCR replicates HPV DNA sequences of E6 gene of HPV types 16,18 and 33. The amplified sequences are detected with specific DNA probes in dot blot hybridization. HPV DNA could be detected in 65 of 77(84.4%) of invasive squamous cell carcinoma, in 19 of 25 (76.0%) of CIS, in 44 of 56(78.6%) severe dysplasia, in 28 of 53(52.8%) of moderate dysplasia, in 26 of 88(29.5%) of mild dysplasia and in 0 of 30(0.0%) of normal cervix. The PCR can specifically detect HPV16,18 and 33 with high sensitivity from paraffin embedded tissues. Detection of HPV in paraffin embedded sections using the PCR is the useful for the retrospective investigation.