A Preliminary Study of the Immunohistochemical Detection of a Novel Tumour Marker, 22-1-1 Antigen, in Gynaecological Cancer Specimens

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Abstract

A novel tumour associated antigen, 22-1-1, has been recently described in association with a cervical adenocarcinoma cell line. The aims of this paper were to study the tissue distribution of this antigen in sections of gynaecological cancer specimens and to compare it with negative controls. Six cases of cervical cancers, 5 cases of endometrial cancers, 4 cases of ovarian cancers and 5 cases each of normal endometrium and cervix were studied. Immunohistochemical staining using streptavidin-biotin methodology was used for each tumour specimen. This revealed positive staining for the 22-1-1 antigen in 5 out of 6 cases of cervical cancer, 3 out of 5 cases of endometrial cancers, and all 4 cases of ovarian mucinous cystadenocarcinomas. Importantly, the antigen was expressed in the cytoplasm, cell membrane and glandular lumen of adenocarcinoma cells. The 22-1-1 antigen was not detected in normal uterine tissues except in uterine cervix, in which its expression was observed at low levels. This study shows that the 22-1-1 antigen was expressed in cancer cells derived from the uterus, cervix and the ovary and may be a potential tumour marker in the management of gynaecological cancer patients.

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