IMMUNOHISTOCHEMISTRY

CK7, PAX8, WT1, ER, PR, Vimentin were positive and P53 was negative. Focal areas of squamous differentiation were positive for p63 and negative for these markers.

Dome of bladder lesion showed only CK7 and p63 positivity.

Small intestine ulcer showed patchy positivity for CK7, p63 and weak positivity of WT1.

Positivity of CK7, PAX8, WT1, ER, PR, P63 and vimentin favoured the diagnosis. Negativity of GATA3, Uroplakin, CDX2, SATB2, CD117, CK20 in all lesions ruled out genitourinary or gastrointestinal primary.

FINAL DIAGNOSIS

Primary peritoneal adenosquamous carcinoma of mullerian origin. Epithelial components seen were serous carcinoma, endometroid carcinoma and squamous cell carcinoma.

DISCUSSION

A primary peritoneal carcinoma is referred to by many names including a mesothelioma, papillary carcinoma of the peritoneum, serous surface papillary carcinoma and extraovarian papillary serous carcinoma; these many names reflect a debate on the histogenesis and clinical behavior of the tumor. With the use of histopathological criteria, these tumors appear more like Mullerian neoplasms than classic mesotheliomas.(1) Adenocarcinoma of Mullerian origin was first described by Dr. Swerdlow in 1959 (2). The original manuscript entitled, "Mesothelioma of the pelvic peritoneum resembling papillary cystadenocarcinoma of the ovary," described a patient with a malignant left-sided pelvic mass. The mass surrounded the left fallopian tube without mucosal involvement; bilateral ovaries and the right tube were negative for disease. Histologically, the tumor closely resembled a papillary ovarian cystadenocarcinoma. Dr. Swerdlow theorized that while ovarian or tubal carcinoma was unlikely, the tumor probably developed from tissue with a similar embryological origin as the ovary (specifically, the pelvic peritoneum, fallopian tubes, or uterus). He concluded that the cancer arose from the pelvic peritoneum [3] In our case also no primary mucosal lesion was identified from tube, ovary, endometrium or cervix. IHC markers confirmed the mullerian origin. However our case showed extensive areas of squamous differentiation ~50% which could be due to the metastastic potential of pelvic peritoneum which can differentiate into urothelial or squamous epithelum. (4) Our case represents the earliest documentation of primary peritoneal adenosquamous carcinoma of Mullerian origin. Only one such case has been described earlier in literature by Yamashita et al.(5) Piek and colleagues have demonstrated in their study preinvasive dysplastic lesions (later coined "serous tubal intraepithelial carcinoma" (STIC) resembled high grade serous carcinoma. (6)However in our case no such preinvasive lesion was demonstrated.