A case series of four women with clear cell ovarian cancer, with unexpected atypical endometriosis as precursor lesions

Abby M. Lombardi, DO\textsuperscript{1}, Eric J. Johannesen, DO\textsuperscript{1}, Jane A. McElroy, PhD\textsuperscript{1}, Mark I. Hunter, MD\textsuperscript{1}, Erin R. Tuller, MD\textsuperscript{1}, Albert L. Hsu, MD\textsuperscript{1}, Jean R. Goodman, MD\textsuperscript{1}

\textsuperscript{1}University of Missouri, Columbia, MO, USA

Abstract

Emerging data suggest a causative link between endometriosis and the subsequent development of rare ovarian carcinomas. The coexistence of these two disease processes was first reported in 1925 by John A. Sampson, who described a case in which histological evaluation of a patient’s tumor revealed both endometriosis and endometrioid ovarian carcinoma.\textsuperscript{[1]} In 1980, German scientists postulated that endometriosis itself may be a true precancerous lesion, causing certain types of ovarian cancer. Data has since emerged, supporting that endometriosis may be a premalignant lesion in cases of clear cell and endometrioid ovarian carcinomas. We describe four cases of clear cell ovarian carcinoma in the presence of coexisting atypical endometriosis. Documenting such cases is essential to understanding how ovarian cancer and endometriosis may be linked, how specific cancer subtypes may evolve, and whether certain subtypes of endometriosis may be independent risk factors for the development of ovarian cancer.