

Concurrent endometrial adenocarcinoma and an early pregnancy loss

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Even though endometrium cancer is the most common cancer of the female reproductive tract, cancer occurs very rarely during pregnancy. A 45-year-old gravida 4 para 3 patient presented with abnormal vaginal bleeding and 8 weeks of pregnancy. The ultrasonographic evaluation revealed a disordered gestational sac with an 8 weeks embryo with no heart beat. The pathological examination of the dilatation and curettage material revealed chorionic villi and fetal material with a small focus of well-differentiated endometrial adenocarcinoma (Fig. 1). The patient completed her fertility and agreed with the decision of her family; a complete surgical staging procedure was performed. Final pathology report showed grade 1 FIGO stage 1A endometrial adenocarcinoma.

To our knowledge, there have been 20 cases of first trimester pregnancy concurrent with endometrial carcinoma reported in the literature [1]. In most of these cases, the diagnosis was made by D&C for incomplete or missed

abortion (61 %) [2]. Different theories have been proposed to explain the unfavorable hormonal milieu of pregnancy for endometrial cancer growth. For example, Risberg et al. pointed out that with concomitant secretory endometrium, the malignant regions must be progesterone refractory. Possibly, carcinoma arises in these foci and is only responsive to estrogen, while the rest of the endometrium continues to be responsive to both estrogen and progesterone [3]. Another possibility of this event is that the endometrial cancer had been there—but in early phase—when pregnancy took place, so the progesterone effect is too late to intervene. Cancers associated with pregnancy are typically limited to a small focus and when more extensive they tend to only invade superficially into the myometrium, as in our patient. Many different etiological theories have been reported about endometrial cancer concurrent with pregnancy. For the first 3 weeks following implantation of pregnancy, hCG promotes production of progesterone by ovarian corpus luteal cells [4]. Hyperglycosylated hCG binds and antagonizes TGF β receptors on the cytotrophoblast cells, the cells that make hyperglycosylated hCG [4]. A number of observations show that hyperglycosylated hCG acts on cancer and pregnancy implantation through antagonizing TGF β [4]. However, the molecular basis of the relation between endometrium cancer and pregnancy still remains obscure. In future studies, the increased understanding of the varying roles of hCG may allow us to build a link between pregnancy and endometrium ca.

Not only gestational trophoblastic neoplasia, but also coincidental endometrial cancer is a rare but possible event in a case of first trimester pregnancy loss. The routine histological examination of the curettage specimens for all first trimester pregnancy losses, independent of the age of the patient, should be encouraged.

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