ICD-O-3
Adenocarcinoma, endometrioid and secretory types
8382/3

Site Code: endometrium C54.1 1/17/11 lw

DIAGNOSIS:

A. Uterus, bilateral ovaries, and fallopian tubes; hysterectomy and bilateral salpingo-oophorectomy: Multifocal, synchronous carcinomas identified within the endometrial lining (intrauterine), anterior uterine serosa, and right ovary.

Within the endometrium, there is a FIGO grade II (of III) endometrial adenocarcinoma, endometrioid and secretory types, forming a mass (5.2 x 2.4 x 0.9 cm) located in the left posterior and right and left anterior walls. The tumor shows only superficial invasion into the myometrium to roughly 0.1 cm (total wall thickness 2.4 cm). No angiolymphatic invasion seen. While the cancer extends into the lower uterine segment, the cervix and endocervix are negative for tumor.

On the anterior uterine serosa, there is a microscopic (roughly 0.4 cm) focus of FIGO grade III (of III) undifferentiated carcinoma associated with psammomatous calcifications and endometriosis. While the presence of calcifications may suggest the possibility of a serous carcinoma, the tumor cell morphology appears too small for that designation. Furthermore, the presence of endometriosis with a granulomatous, giant cell, and fibrohistiocytic reaction suggests the possibility that this cancer has arisen from endometriosis.

A third focus of cancer is present in the right ovary and represents a FIGO grade I (of III) endometrioid adenocarcinoma forming a nodule (0.9 x 0.9 x 0.8 cm) and associated with atypical complex

hyperplasia. The tumor morphology is compatible with a low grade endometrioid cancer arising from an atypical endometrioid adenofibroma of the ovary. However, cancer arising from an endometriotic cyst cannot be completely excluded.

The left ovary and left and right fallopian tubes are negative for tumor.

Comment:
Despite thorough sampling of the intrauterine tumor, there does not appear to be any cancer morphology which unequivocallly matches the anterior serosal cancer implant. Furthermore, in immunoperoxidase studies performed using tissue from the anterior uterine serosa (A1) and intrauterine tumor (A2), the cancer in the uterine serosa shows strong and diffuse reactivity with antibodies to p53 and MIB-1 without reactivity with antibodies to estrogen receptors. Conversely, the intrauterine endometrial cancer shows reasonably strong (roughly 50% of the cells) positivity with estrogen receptors with attenuated reactivity with antibodies to p53 and MIB-1 (again, about 50% of the tumor cells positive). These immunoresults indicate that the cancer focus on the anterior uterine serosa is higher grade than the intrauterine cancer. However, they do not establish how this uterine serosal focus developed.

ADDENDUM:
HNPCC screen will be performed on endometrial cancer tissue sections (block A2)

ADDENDUM:

At the request of the clinical service involved in the care of the patient, immunohistochemical staining for DNA mismatch repair enzymes MLH1, MSH2, MSH6, and PMS2 was performed on the paraffin-embedded endometrium cancer sections (block A16). There is aberrant loss of expression of MLH1 and PMS2 within the malignant cells. Internal positive control staining is present. MSH2 and MSH6 expression is intact within both the neoplastic and non-neoplastic cells. The findings confirm defective DNA mismatch repair due to loss of MLH1 expression with secondary loss of PMS2. Differentiation between germline and somatic MLH1 abnormality will require mutation analysis.

PRELIMINARY FROZEN SECTION CONSULTATION:

A. Uterus, bilateral ovaries, and fallopian tubes; hysterectomy and bilateral salpingo-oophorectomy: FIGO grade II (of III) endometrial adenocarcinoma, endometrioid and secretory type, is identified forming a mass (5.2 x 2.4 x 0.9 cm) located in the anterior uterine wall. The tumor invades 0.1 cm into the myometrium, total wall thickness 2.4 cm, and involves the lower uterine segment. The tumor does not involve the endocervix. The margins are negative for tumor. Right ovary - Question of adenofibroma. The left ovary and

bilateral fallopian tubes are without diagnostic abnormality.

Hold to assess for invasion. Frozen section histologic interpretation performed by:

GROSS DESCRIPTION:
A. Received fresh labeled "uterus, right and left fallopian tubes and ovaries" is a 160.0 gram uterus with attached bilateral tubes and ovaries and an unremarkable cervix. The anterior uterine serosa has focal hemorrhagic adhesions with a grossly identifiable firm nodule (roughly 0.5 cm). There is a 5.2 x 2.4 x 0.9 cm polypoid mass in the left posterior wall and right and left anterior wall of the endometrial cavity with 2.4 cm myometrial thickness. The tumor extends to involve the lower uterine segment grossly. There are no leiomyomata present. There is a 3.6 x 2.8 x 2.5 cm right ovary with focal hemorrhagic adhesions on the outer surface and a cyst (0.9 x 0.8 x 0.8 cm) with brown contents and multiple hemorrhagic cysts (ranging in size from 0.2 cm to 0.7 cm in greatest dimension) and a 9.8 x 0.6 cm right fallopian tube. There is a 3.3 x 2.4 x 2.2 cm left ovary with a smooth outer surface and multiple hemorrhagic cysts (ranging in size from 0.3 cm to 1.0 cm in greatest dimension) and a 8.7 x 0.6 cm left fallopian tube with a 1.3 cm in greatest dimension paratubal cyst. Representative sections submitted.

BLOCK SUMMARY:
Part A: Uterus, tubes, ovaries

1 Anterior uterine serosa
2 Endometrium-1
3 Endometrium-2
4 Endometrium-3
5 Endometrium-4
6 Endometrium-5
7 Lower uterine segment
8 Cervix
9 Rt fallopian tube
10 Rt ovary
11 Lt fallopian tube
12 Lt ovary
13 Surface of Rt ovary
14 Rt ovary cyst-1
15 Rt ovary cyst-2
16 Endometrium
17 Endometrium
18 Endometrium
19 Endometrium
20 Endometrium
21 Endometrium

Criteria	Yes	No
Diagnosis Discrepancy		✓
Primary Tumor Site Discrepancy		✓
HIPAA Discrepancy		✓
Prior Malignancy History		✓
Dual/Synchronous Primary Noted	✓	

Case is (circle): QUALIFIED / DISQUALIFIED
Reviewer Initials: [illegible] Date Reviewed: 10/18/10