

## **An uterine adenomyosis case concomitant with endometrial cancer**

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My life work tendency of endometriosis (emosis) urged me to recall one of my previous cases and made me take a look at that case again this year, for that would be a model to evaluate the histogenesis of cancer in emosis, furthermore propose the possibility even of emosis. Is existence of cancer in adenomyosis of the same uterus an occasional one or a necessity that one of the two lesions affects another, respectively?

That is an author's big question that should come to resolve my long term problem in emosis.

So here again I try to remember her clinical course, possibly in future being challenged by the histology such as an immunohistochemical technique I ever had in my younger age.

### **Case report**

Screening on cervical cancer showed abnormal Papanicolaou smear (smear) on the 63 year-old Japanese woman. Smear was IIIa at the beginning of that year, so she visited the nearest Ob/Gyn clinic getting class V endometrial smear, afterwards revealing endometrial carcinoma tissues by the curettage in 2 weeks. Her menopause was at the age of 53, 10 years before, having continuous atypical genital bleeding since last November. She got an operative procedure on April in the same year. It was simple total hysterectomy, bilateral salpingo-oophorectomy and left iliac lymphadenectomy.

### **Pathology**

Through the naked eyes almost all the entire surfaces of the endometrium got appearance of cancer tissues, particularly revealing features of marked proliferation at bottom of the uterus or fundus uteri, without ruptured figures of the uterine wall. When you cut the affected uterus at the center almost longitudinally, cancer did not reach to the midth of the uterine wall.

Microscopically tissues disclosed a moderately differentiated adenocarcinoma associated in parts squamous differentiation. Adenomyosis was found in almost all of the uterine body. Small leiomyomata were shown in uterine cervix with some Nabothian follicles.

## Methods

The whole uterine body was cut into 48 sections, where localizations of adenomyosis and endometrial cancer were evaluated as well as those sites-relationships. As a result from the microscopic distribution of cancer and adenomyosis, this case was designated as a primary endometrial carcinoma associated with adenomyosis. That is to say there are many adenomyosis invaded by cancer tissues, although the dysplastic changes in adenomyotic glandular epithelium or even to the carcinomatous changes were also shown, possibly suggesting the malignant potential of adenomyotic gland.

## Discussion

From the last sentence of methods, you can suppose the reason for this paper. Histogenesis of emosis, in the model of its internal one, adenomyosis, has been my peculiar interests for more than three decades. Beyond my 60 years of age<sup>3)</sup>, I started to overview my previous articles, beginning in 2 papers this time, that is, experimental adenomyosis and electron microscopic survey of endometrial cancer which developed through my own procedure.

The case shown in this paper was a gift from my former teacher, emeritus Prof. Dr. to evaluate the relationship between clinical cancer and adenomyosis. He taught me at the time of postgraduate course when he came back from Germany as a Prof. of pathology of my graduate uni., how to create the adenomyosis at the standpoint that adenomyosis<sup>1)</sup> could be an precursor to the uterine cancer in my experimental carcinogenesis in mice. We found that the continuous estrogen stimuli might influence the histogenesis of adenomyosis, or even to the uterine cancer.

My questionnaires are as follows;

1) What is adenomyosis?

Robbins basic pathology<sup>4)</sup> says that it is a downgrowth of basal layer of endometrium into the myometrium without comments why and how it grows down. It also says that mechanism of external emosis are supposed to be (1) regurgitation, menstrual backflow through fallopian tubes, being not be able to explain lesions in lymph nodes or lungs. (2) metaplasia that coelomic epithelia change to endometrium also fails to explain for lymph node or lung. (3) Vascular or lymphatic permeation would be the 3rd. All of these 3 should come together in patients when you consider the histogenesis of emosis.

2) Is adenomyosis a precursor of cancer?

3) If so, does adenomyosis have a malignant potential? If not, does an above mentioned case report tell us about a simple coincidence?

4) Relationship in both seemed to be argued by the way of environmental circumstances such as hormonal affection in my before-mentioned experiments as described above.

After the summation of my experimental uterine carcinogenesis in mice, we surveyed the endometrial cancer which had squamous differentiation of cancer cells electron microscopically<sup>2)</sup>. The reason why I cited here and stressed above the phenomenon of metaplasia is that one of the mechanism of emosis would be a celomic metaplasia theory existing even now.

At that experiment time, I did not realize the significance of this phenomenon, but today I come to think of its meaning of the differentiation of cells to another one in even to the normal appearing cells vice versa from this last case presented. Repeatedly in that article of 33 years before we described the electron microscopic transformative features of cancer cells into rather mature squamous epithelium that proposed to lead us to the squamous metaplasia of cancer or adenosquamous carcinoma formation.

It will be curious to know that as a matter of fact in the very first experiment on mice emosis my own adenomyosis or emosis interna was performed which came to the big interests during my life time including a clinical one.

At this moment in the beginning of 21st century, emosis is still an enigmatic lesion for me even in that experimental one as well as clinical course of it repeatedly.

In the near future I have a plan to apply the immunohistochemistry in this case, although it will not be so easy to evaluate the meaning of immunohistochemically reactive substances as well as performing which substances are effective to evaluate for the emosis histogenesis.

The author appreciates his kindness of former teacher Prof. emeritus Eiichi Sato who gave me a case to survey the emosis when I came back to Kagoshima after being defeated by the Ob/Gyn malignancy and emosis. This case was presented at the international symposium of molecular pathology held at Dunhuang, the People's Republic of China<sup>5)</sup>.

## References

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- 4) Robbins. Basic pathology 7th edition 2003; 689-90.
- 5) Proceeding of international symposium of molecular pathology, Dunhuang, the People's Republic of China 1998; 46.

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