NINETY CONSECUTIVE HYSTERECTOMIES

(Histopathological Analysis)

by

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Improved technique of anaesthesia and surgery, availability of blood transfusions and the routine use of antibiotics have made surgery very safe. The indications for hysterectomy have also been liberalised.

Our interest in histopathological analysis of these cases was aroused because of unusual findings obtained in some of the sections. For example, adenomyosis was reported in specimens of uteri removed for prolapse seven to eight years after menopause, granulosa cell sarcoma was reported when the uterus was removed for irregular bleeding.

Material

Histopathological study of ninety consecutive hysterectomies, performed between 1st January 1965 to 24th December 1965, was carried out. This included both abdominal and vaginal hysterectomies done for gynaecological indications, excluding those for cancer of the cervix. Even though this study is mainly a histopathological review, correlation of age, parity menstrual history are essential.

Out of ninety cases, forty-four hysterectomies were done abdominally and forty-six were done vaginally for prolapse, six being done for dysfunctional uterine bleeding as an additional indication. Those patients with an uterine size up to but not exeeding that of a 12 weeks' pregnant uterus were selected for vaginal hysterectomy. Cases without any appreciable prolapse and uterine size more than 12 weeks were selected for operation by the abdominal route. Suspicion of or definitely associated pelvic pathology constituted an additional indication for an abdominal approach.

Age

In this series, the maximum age was 67 years and minimum 30 years, the average being 40.66 years. A note must be made of the fact that many patients could not tell their age correctly. Attempts were, therefore, made to estimate age from

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the ages at onset of menarche, marriage and that of the first child. On an average, 66.6% of the patients were above 50 years. As a general rule a conservative approach to the uterus was followed.

Parity

Ninety per cent of patients had a minimum of two deliveries. Maximum parity 11, minimum nullipara, average 6th.

Seven patients in this series had only one child. Of these, four cases were menopausal and the indication in the other three cases was functional uterine bleeding. All the 7 patients were above 40 years of age. Two patients were nulliparous. One was operated for post-menopausal bleeding. The other patient was a 32 years old divorcee who had multiple fibroids and menometrorrhagia. Among the premenopausal group, patients were taken up for surgery immediately after the menstrual period.

TABLE I

Indications for surgery

Indications	Premeno-pausal	Post-meno-pausal
1. Prolapse	13	24
2. Vaginal bleeding	47	6
i. Menorrhagia	6	—
ii. Menometrorrhagia	37	—
iii. Polymenorrhoea	4	—

Indications

Forty-seven patients were operated upon for menometrorrhagia. In 15 cases preoperative curettage was done and histopathological report of the endometrium was available, which did not show malignancy. Six patients had post-menopausal bleeding. Six patients were operated on for fibroids and 3 for ovarian cysts.

Histopathological report and review of literature

In the present series, histopathological reports were studied and conclusions were arrived at, after noting the following:

i. Thickness of the endometrium.
ii. Number of glands per low power field.
iii. Character of blood vessels.
iv. Type of stromal cells or mitotic figures as described by Scheerer and Greener.

Two groups were made to study the histopathology; the 1st group, the post-menopausal patients; the 2nd group, the premenopausal patients.

Group I

Thirty patients were post-menopausal.

The presence of adenomyosis was an unexpected finding in four post-menopausal cases with bleeding, 3 had a proliferative type of endometrium. One patient had swiss cheese type of endometrial hyperplasia.

One patient had endometrial hyperplasia, while in the other the endometrium was in the resting phase. There was no case where secretory type of endometrium was reported, whereas Thakkar & Fernandez have reported 2.8% of cases in their series of 104 cases showing secretory phase. The explanation could be that, the ovaries stopped functioning when the endometrium

TABLE II

Types of endometria in different series of postmenopausal patients

No.	Name of Author	Type of endometrium					
		Atrophic	Inactive gland pattern	Hyper-plasia	Polifer-ative	Secre-tory	Polypoidal tendency (in one lakh)
1.	Gianaroli (1950) 50 cases	15 %	15 %				
2.	Speert (1949) 60 cases		72 %	1.5%			17 %
3.	Foire 100 cases (1952)	6 %	80 %		10 %	3 %	
4.	Davis (1953) 40 cases	40 %	30 %	25 %	5 %		
5.	Maebnde (1955)	60 %	20 %	5 %			
6.	Parks (1958) 337 cases	49.6%	48.9%	0.9%	0.3%		
7.	Novak 137 cases	45.2%	24 %	20 %	10 %		
8.	Manakkar & Fernandez (1964) 104 cases	9.6%	15.3%	2.8%	49.6%	2.8%	0.96%
9.	Our series (1965) 30 cases	20.8%	8.3%	15.8%	54 %		

was in the secretory phase and remained so. It is equally well known that ovulation may occur spontaneously during the early years of the menopause and that if surgery was undertaken at that time, the endometrium will show secretory activity.

Group II

Sixty patients were premenopausal when operated upon. Thirteen were operated upon for prolapse with an average age above 40 years. Forty-seven cases were operated on for menometrorrhagia. Out of 47 cases, 6 were clinically diagnosed as fibroids and confirmed at laparotomy. As these patients were operated upon immediately after the menstrual period was over, most of these endometria were in the proliferative phase. Out of 47 cases of menometrorrhagia, adenomyosis was found on histological examination in 5 cases.

Unusual cases

(A) Presence of adenomyosis in 4 patients who were post-menopausal. All these patients were menopausal for more than 5 years. Almost certainly there is a different aetiology of the disease and indeed the only similarity is "a common property to exibit abberant endometrial tissue, which is dependant on sustained

ovarian function", says Novak when comparing adenomyosis with endometriosis externa. The finding of adenomyosis uteri in 4 cases operated upon for prolapse in post-menopausal period was unexpected.

(B) Stromal cell sarcoma

Mrs. R. H., 40 years old, was admitted for irregular bleeding and foul smelling discharge for 1 month. Her past menstrual history was normal. She had 2 full-term deliveries, last delivery being 15 years ago. General and systemic examination did not reveal any abnormality. On speculum examination, a polyp which was seen protruding through the cervical canal was firm, did not bleed on touch and was thought to be a fibroid polyp. On bimanual examination, the uterus was found to be mobile, firm, slightly bulky. A total abdominal hysterectomy with bilateral salpingo-oophorectomy was done after routine preoperative investigations. The uterus was slightly bulky and both the tubes and the ovaries looked normal. The histological report was stromal cell sarcoma infiltrating the myometrium.

According to Novak, no one can be dogmatic in his opinion as regards the origin of sarcoma, for all the constituent elements of the uterus — muscle, connective tissue, epithelium and blood vessels are of common mesodermal origin, thus it might be expected that a pure sarcoma could arise from any one of the elements and that a mixed tumour can arise if more than one element is involved. Frankly malignant sarcoma arising from the endometrial stroma is generally not difficult. Endometrial sarcoma often presents as a greyish—pink polypoid excrescence at the cervical os. Inversion of the uterus is not a rare complication although not recognised except during the course of operation. Indeed malignant nature of these polypoid lesions is generally not recognised unless excision or biopsy of polyp is carried out. According to Novak, sarcomatous tumours of genital tract have an incidence of not more than 0.5%.

(C) Adenocarcinoma of the fallopian tube

Mrs. D. M., 50 years old, was admitted for post-menopausal bleeding for 1 year. The bleeding was intermittent but never profuse. The patient was a nullipara and in menopause for 6 years. Her past menstrual history was normal. On examination, the cervix and uterus were of normal size. A cystic mass was felt in the right fornix. A clinical diagnosis of tubo-ovarian mass was made. A fractional curettage was done and it showed the endometrium in proliferative phase. A total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed. A moderate sized hydrosalpinx was present on the right side. Histopathological examination showed that there was adenocarcinoma of the right fallopian tube, whereas the uterus and ovaries were normal. The patient was referred to Tata Memorial hospital for deep x-ray therapy. She is well and symptom-free to date.

Novak states that carcinoma of the fallopian tube is very rare, the incidence being 1.1:1000 cases of genital cancer. It is usually bilateral and occurs at the outer end of the

tube. It is free from adhesions. It is never diagnosed preoperatively. It contains serosarguineous fluid. Indeed early carcinoma of the tube strongly simulates hydrosalpinx. If, however, what appears to be a hydrosalpinx is found in a post-menopausal woman, it should raise the suspicion of malignancy of the fallopian tube. Tuberculosis of the fallopian tube resembles adenocarcinoma and can cause difficulties in histopathological diagnosis.

(D) Adenoacanthoma of uterus

Mrs. G. S., 40 years old, was admitted for irregular periods for 18 years. The periods used to come after 50-70 days and last for 20-30 days, last delivery being 18 years previously. On examination the only positive finding was a firm 12 weeks size uterus with a small polyp protruding from the cervix. After routine preoperative investigations and treatment for anaemia, a total abdominal hysterectomy with bilateral salpingo-oophorectomy was performed, as the clinical diagnosis was functional uterine bleeding. The histopathological report read, "left ovary cystic and uterus contained submucous leiomyoma. The endometrium showed adenoacanthoma infiltrating the myometrium".

Novak mentions that adenoacanthoma is a squamous metaplasia of either the surface or glandular epithelium occuring in adenocarcinoma.

This has often been seen in adenocarcinoma of first or second grade. Many theories have been postulated regarding the origin of this tumour. It may arise from certain indifferent cells beneath the columner epithelium. The recent view is that it is a direct metaplasia from glandular epithelium. According to British workers it is followed by 25 to 33% extrauterine metastases.

Conclusions

The purpose of this study was to find out the various types of 'pathologies' detected when a clinical diagnosis, for example functional uterine haemorrhage, is made and the uterus and the adnexae are removed for the same; or the uterus and the adnexae are removed for benign pathology diagnosed clinically. Our review does indicate that a histopathological examination of all the uteri and adnexae removed is imperative and if malignancy is detected, the patient should be given the benefit of immediate post-operative treatment (deep x-ray therepy or radium). It is felt also that a routine diagnostic curettage should preceed hysterectomy to avoid inadequate surgery resulting from the missed diagnosis. We also became aware of the fact that benign conditions like asymptomatic adenomyosis may cause irregularities of bleeding and had a routine histopathological examination not been done, would have been labelled as functional haemorrhage. A proper correlation of symptoms and signs is possible after such a retrospective study of cases aided by histopatholgy.

Summary

Ninety consecutive cases of hysterectomies were reviewed from histopathological point of view. Four unusual cases were detected. The importance of histological examina-

tion as a diagnostic measure prior to surgery and of all the operative specimens post-operatively is emphasized.

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