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The evaluation of preoperative and histopathologic diagnosis in specimens of hysterectomy performed for benign conditions

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Abstract: The aim of this study is to evaluate hysterectomy procedures performed for benign conditions in terms of indications and histopatho-logical results. Retrospective analysis of 32 hysterectomy cases, which were performed between January 2011 and Decem-ber 2012, was conducted to review indications and histo-pathological diagnoses. The most frequent indications for hysterectomy were abnormal uterine bleeding myoma uteri and endometrial hyperplasia, respectively. Other clinical indications were adenomyosis and uterine prolapse .The most common histopathological diagnoses reported for hysterectomy specimens were leiomyoma adenomyosis and endometrial hyperplasia respecti-vely. Endometrial polyp was diagnosed in specimens of patients. Endometrial atrophy was reported in patients. Cervical histopathology of hysterectomy materials revealed chronic cervicitis in of the patients. Due to the high coincidence of myoma uteri and endometrial hyperplasia, endometrial sampling should be performed in patients who are being considered for hysterectomy.

Keywords: Hysterectomy, Benign Diseases, Pathological Evaluation

1. Introduction

Hysterectomy is defined as the surgical removal of the uterus. It is one of the most common of all surgical procedures and can also involve the removal of the fallopian tubes, ovaries and cervix to cure or alleviate a number of gynaecological complaints[1]. The most frequent indications for hysterectomy are abnormal uterine bleeding myoma uteri and endometrial hyperplasia. Other clinical indications are adenomyosis and uterine prolapse. The most common histopathological diagnoses reported for hysterectomy specimens were leiomyoma adenomyosis and endometrial hyperplasia [2].

There are three approaches to hysterectomy for benign diseases: abdominal hysterectomy (AH), vaginal hysterectomy (VH) and laparoscopic hysterectomy (LH). Laparoscopic hysterectomy has three further subdivisions - laparoscopic assisted vaginal hysterectomy (LAVH) where a vaginal hysterectomy is assisted by laparoscopic procedures that do not include uterine artery ligation, laparoscopic hysterectomy (which we will abbreviate to LH(a)) where the laparoscopic procedures include uterine artery ligation, and total laparoscopic hysterectomy (TLH) where there is no vaginal component and the vaginal vault is sutured laparoscopically [3].

The aim of this study to evaluate hysterectomy procedures performed for benign conditions in terms of indications and histopathological results.

2. Patients and Methods

Thirty two patients who were operated for beningn caused total abdominal and vaginal hysterectomy between January 2011 and November 2013 were investigated retrospectively. The hysterectomy indications and histopathological examination of the hysterectomy materials were evaluated. Demographical features were noted. The statistical analysis was made with PSPP0.8.1 programme for Windows.

3.Results

Total of 32 hysterectomy materials between january 2011 and november 2013 were evaluaed. The age avarage of the patients was 48.18±5.87 (39-67). The most common hysterectomy indication was abnormal uterine bleeding which was observed in 24 cases (75%). The second indication was uterine myoma in 4 cases (12.50%) and endometrial hyperplasia in 2 cases (6.25%). Both adenomyosis (6.25%) and uterine prolapsus (3.13%) were observed in one patient (Table1).

Table 1. *The clinical hysterectomy indications (%)*

Indication	Number (n)	Ratio (%)
Abnormal utrine bleeding	24	75.00
Uterine myoma	4	12.50
Endometrial hyperplasia	2	6.25
Adenomyosis	1	3.13
Uterine prolapsus	1	3.13

After the hystopathological examination of the hysterectomy materials the results were as follows; 15 patients were diagnosed as leiomyoma (46.87%), 4 patient were diagnosed as adenomyosis (12.50%) and 3 patients were endometrial hyperplasia (9.38%). Endometrial polyp was observed only in one patient (3.17%) and 7 patients had combined pathological disorders (21.87%) (Table 2).

Table 2. *Types of the hystopathological diagnosis*

Indication	Number (n)	Ratio (%)
Leiomyoma	15	46.8
Adenomyosis	4	12.5
Endometrial hyperplasia	3	9.38
Endometrial polyp	1	3.13
Leiomyosarcoma	2	6.25
Combined pathology	7	21.87

Combined pathologies were detected in 7 patients. The most common comorbidities were adenomyosis and uterine myoma in 4 cases (34.57%). However, uterine myome and endometrial polyp coexistence were less often with 2 cases (6.25%). Only in one case the endometrial hyperplasia was seen together with uterine myoma.

The histopathological subtypes of endometrial hyperplasia in 3 patiens were identified as follows; simple endometrial hyperplasia in one patient (3.13%), complex atypical hyperplasia in one patient (3.13%), complex non atypical hyperplasia in one patient (3.13%).

The age avarages with respect to the histopathological diagnosis were, 46.75 (±6.55) for adenomyosis, 47.33 (±5.25) for uterine myoma, 50.33 (±5.50) for endometrial hyperplasia and 45.50 (±0.70) for leiomyosarcoma. Only one patient diagnosed as endometrial polyp was 44 years old. Two patients with leiomyosarcoma were underwent surgery for abnormal bleeding.

4.Discussion

Leiomyomas, also known as fibroids, are the most frequent benign uterine tumors that develop during a woman's reproductive years; occurrence tends to regress after menopause [4]. Symptoms related to UL are menstrual disorders, mainly menorrhagia, pelvic pain, and infertility, which can adversely affect pregnancy outcomes [4-6]. Approximately, 140.000 hysterectomies and 20.000 myomectomies were applied within one year based on leiomyoma caused symptoms [7].

Isaoglu et al. reported that leiomyoma constituted a significant part of hysterectomy indications (28.19%)[2]. However Dincgez and friends found that 32.77% of hysterectomies were diagnosed as uterine myoma[9]. In our study leiomyoma incidence of hysterectomy cases were 6.25% .

Abnormal uterine bleeding (AUB) is a common cause for women in the reproductive age group that consulted to a doctor. AUB is also the common cause for iron deficiency anemia in our country, especially in the reproductive age group. Uterine fibroid, adenomyosis, polyp (endometrial and endocervical), endometrial hyperplasia and malignancy are the structural causes for AUB [10]. Abnormal uterine bleeding was the most common histerectomy indication in our study (75%) .

Oeda et al. showed that, 44.% of the hysterectomy cases were leiomyoma, 22.3% of them were endometrial hyperplasia, 12.23% were malign disorders and 6.44% were endometriosis [11]. Another study made by Atılgan and friends, 361 hysterectomy cases were evaluated and 40.16% were uterine myoma, 38.22% of the cases were endometrial hyperplasia, 25.48% were adenomyosis and 8.86% were endometrial polyp[12]. Isaoglu et al demonstrated that 32.17% of the cases were leomyma, 30.23% were adenomyosis, 29.84% were endometrial hyperplasia and 5.04% were endometrial polyp [2]. After the examination of the hystopathological material we found that the most common indication was leiomyoma in 15 patients (46.87%), the second was adenomyosis in 4 cases (12.50%) and endometrial hyperplasia in 3 patients (9.38%). Endometrial polyp was detected in only one patient (3.13%) and 7 patients were diagnosed as combined pathologies (21.87%). Adenomyosis is an another common condition detected in hysterectomy specimens. It is characterized by the presence of endometrial glands and stroma within the myometrium. Patients are typically pre or perimenopausal women who

present with abnormal bleeding [10].

Hysterectomy operations applied for benign gynaecological occasoins were reported as 25-35% (13). Cakmak and friends involve 149 hysterectomy patients in their study and the histopathological examination revaled that adenomyosis incidance was 11.4% [14]. In fact Isaoglu et al. found that 30.23% of the hysterectomy cases were diagnosed as adenomyosis [2]. However in our study the adenomyosis was detected in 12.50% of the patients.

Endometrial hyperplasia has been classified into 3 main subtypes: simple hyperplasia, characterized by minimal endometrial glandular crowding and with low risk of progression to endometrial carcinoma; complex hyperplasia, characterized by greater endometrial glandular crowding and intermediate risk of progression; and atypical hyperplasia, comprised of endometrium with complex glandular crowding and/or cytologic atypia and the greatest risk of endometrial carcinoma progression [15].

Endometrial hyperplasia has been a gyneacological condition that could be seen in women of all age goups and the patients have usually presented with atypical uterine bleeding [2]. In our study endometrial hyperplasia were seen in 9.38% of the patients.

Combined pathological disorders could also be seen after the hystopathologic examination. Shagill et al. involved 100 hysterectomy cases in their study and histopathological examination revaled that 38 patients were diagnosed as leomyoma together with adenomyosis, 25 cases were only presented with leiomyoma and 3 cases were identified as only adenomyosis[16]. However adenomyosis with uterine myoma were seen in 4 of our cases (34.57%), uterine myoma and endometrial polyp coexistance were less often and seen in 2 patients (6.25%), endometrial hyperplasia together with uterine myoma was only seen in one patient (3.13%) respectively.

As a result, we think that despite the clinical diagnosis, hystopathological evaluation of the hysterectomy materials revealed that adenomyosis, endometrial polyp and leiomyosarcoma were much more common pathologies, the existance of sarcomatous transformation should be recognised and prepared for the oncological procedures.

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