Journal of Recent Advances in Medicine

Print ISSN: 2636-252X
Online ISSN: 2636-2538

Original Article

Audit on gynecological surgeries in AL-Zahraa University Hospital in year 2017

Obstetrics and Gyncology

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ABSTRACT

Background: Surgical audit is a systematic, critical examination of surgical quality that is examined by peers against specified criteria or standard recognition, then utilized with the ultimate aim of increasing the quality of patient care by enhancing surgical practice.

Objective: To appraise the effectiveness and efficiency of gynecological surgeries performed in Al-Zahraa University Hospital from 1 January 2017 to 31 December 2017.

Methodology: This retrospective study included all gynecological operations that were conducted at the Department of Obstetrics and Gynecology in Al-Zahraa University Hospital in year 2017. History records and patient files admitted for gynecological procedures were gathered. Data was collected regarding age, parity, presenting complaint, preoperative diagnosis, operations type, intra-and postoperative complications.

Results: Ovarian cysts, polycystic ovaries and infertility were indications for the laparoscopic surgeries in 24 (52.2%), 12 (26.1%), and 9 (19.6%) respectively. Uterine fibroids, post-menopausal and peri menopausal bleeding, and adnexal mass indications for Hysterectomy in 19 (30.6%), 18 (29%), 10 (16.1%), and 7 (11.3%) respectively. Post-menopausal bleeding, peri-menopausal bleeding, endometrial polyp, menororrhagia, and cervical polyp indications for the dilatation and curettage operations in 9 (27.3%), 9 (27.3%), 4 (12.1%), 3 (9.1%), and 2 (6.1%) cases respectively. Blood loss was the most common operative complication in 3 (42.9%) cases. Hysterectomy had the longest total hospital stay and pre-operative hospital with a mean of 10.63 ± 4.96 and 8.13 ± 4.87 days respectively

Conclusion: The most prevalent gynecological procedures were laparoscopic ovarian cystectomy, therapeutic hysteroscopic operations, total abdominal hysterectomy with bilateral salpingo-oophorectomy, and dilatation and curettage biopsies. The most prevalent surgical complication was intraoperative blood loss. Hysterectomy needed the most total hospital stay and pre-operative hospitalization, while Vulval required the least amount of pre-operative hospitalization.

JRAM 2022; 3(2): 87-95

Keywords: Audit, gynecological, surgeries.

Submission Date: 30 October 2021 **Acceptance Date:** 12 May 2022

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Please cite this article as: Esmaeil AM, Olama MA, Moharram NM. Audit on gynecological surgeries in AL-Zahraa University Hospital in year 2017. JRAM 2022; 3(2): 87-95. DOI:10.21608/jram.2022.92517.1136

INTRODUCTION

Surgical audit is an essential method for preserving clinical standards of surgical treatment. Surgical audit is a systematic, critical examination of surgical quality that is examined by peers against specified criteria or standard recognition, then utilized to further enhance surgical practice with the ultimate objective of increasing the quality of patient care [1]. The Institute of Internal Auditors (IIA) describes operational audits as a systematic method for assessing the efficiency, margin of improvement of an organization's controlled operations and presenting the assessment findings for enhancement to relevant parties [2]. Gynecological operations including hysterectomy, Dilation and curettage (D and C) biopsy, genital prolapse surgeries, laparoscopy and myomectomy are the most common operations in medical practice. Gynecological operations are carried outon the female reproductive system in non-gravid women. They are conducted for emergencies or on optional grounds. Procedures for emergencies include Bartholin's abscesses and defloration injuries amongst others, while optional procedures include genital prolapse, obstetric fistulae as well as some cancerous abnormality [3]. The purpose of clinical audit is to improve the quality of patient care and outcomes through systematic evaluation

of care against explicit criteria (setting a standard of care and measuring practice against this standard) and the implementation of change (improvement where possible) [4]. The purpose of this work is to audit the gynecological operations that were performed at Al-Zahraa University Hospital during the year of 2017 to assess their indications, complications and days of hospital stay for each type of operations.

PATIENTS AND METHODS

This is a retrospective study included all gynecological operations that were conducted at the Obstetrics and Gynecology Department, Al-Zahraa University Hospital in year 2017. Ethical approval was received from the ethical committee of faculty of medicine for girls, Cairo, Al-Azhar university, Egypt.

The following data were collected about all studied gynecological surgeries:

1. Type of the operation.
2. Collection of available data about the patient history, examination, which might be found in registration file.
3. Indications of the operation.
4. Intra-operative and post-operative complications.

Inclusion criteria

All patients who underwent any gynecological surgery.

Exclusion criteria

There were no exclusion criteria.

Statistical analysis

The recorded data were processed using IBM SPSS software package version 20.0. (Armonk, NY: IBM Corp). Qualitative data were presented as numbers and percentage. Quantitative data were presented as range, mean and standard deviation (SD). Chi-square test was used to assess the significance between two qualitative variables. P-value <0.05 was considered significant (95% confidence interval).

RESULTS

The most common age group admitted in the year of 2017 was ranged from 31 to 50 years constituting 79 (46.7%) patients. Vaginal bleeding was the most common presenting complaint in patients who underwent gynecological operations constituting 63 (37.3%) cases followed by abdominal pain in 49 (29%) cases (table 1).

The number of the diagnostic laparoscopic surgeries was equal to the number of the therapeutic laparoscopic surgeries, and each was 37 (50%) cases. Ovarian cystectomy was the most common subtype of the laparoscopic surgeries, and it was done in 18 (24.3%) cases. Ovarian cysts, polycystic ovaries and infertility were a statistically significant indications for the laparoscopic surgeries and they were the indication in 24 (52.2%), 12 (26.1%), and 9 (19.6%) respectively. Percentages of therapeutic Lap. Findings were 24.3%, 21.6%, 2.7% and 1.4% for Ovarian cystectomy, Ovarian drilling, Salpingectomy and Adhesiolysis respectively (table 2) and(figure 1).

Abdominal hysterectomy was more frequent than vaginal hysterectomy. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was the most common subtype of hysterectomy and it was done in 30 (48.4%) cases. Uterine fibroids, post-menopausal bleeding, peri-menopausal bleeding, and adnexal mass were statistically significant indications forHysterectomy and they were the indication in 19 (30.6%), 18 (29%), 10 (16.1%), and 7 (11.3%) respectively (table 3).

Table (1): Distribution of the studied cases according to the age and patients' complaint

Items	Females(n= 169)
	n (%)
Age groups	
≤ 30	50 (29.6%)
31 – 50	79 (46.76%)
> 50	40 (23.76%)
Presenting complaint	
Vaginal bleeding	63 (37.36%)
Abdominal pain	49 (29.06%)
Seeking for pregnancy	43 (25.46%)
Vaginal mass protrusion	12 (7.16%)
Increasing abdominal contour	7 (4.16%)
Urine incontinence	6 (3.66%)
Stool incontinence	3 (1.86%)
Vulval mass	2 (1.26%)
Post defloration injury	1 (0.66%)

Table (2): Distribution of the laparoscopic surgeries and its relationship with the gynecological indications

Laparoscopy (n=74)		n (%)
Diagnostic		37 (50%)
Therapeutic	Ovarian cystectomy	18 (24.3%)
	Ovarian drilling	16 (21.6%)
	Salpingectomy	2 (2.7%)
	Adhesiolysis	1 (1.4%)
Indications	**Total number of cases with each indication**	**Surgical laparoscopy (n = 46)**
Ovarian cyst	38	24 (52.2%)
PCO for drilling	12	12 (26.1%)
Infertility (had no PCO nor ovarian cyst)	19	9 (19.6%)
Adnexal mass	10	1 (2.2%)

PCO: polycystic ovary syndrome

Table (3): Distribution of hysterectomy and its subdivisions and its relationship with gynecological indications

	Hysterectomy (n =62)	n (%)
Abdominal (no. =53)	TAH with BSO	30 (48.4%)
	TAH with unilateral salpingo-oophrectomy[#]	3 (4.8%)
	TAH with BS with preservation of both ovaries	2 (3.2%)
	TAH with bilateral salpingectomy, unilateral oophorectomy	1 (1.6%)
	TAH with unilateral salpingectomy	1 (1.6%)
	Sub TAH with BS with preservation of both ovaries	12 (19.4%)
	Sub TAH with unilateral salpingectomy	2 (3.2%)
	Sub TAH with bilateral salpingectomy, unilateral oophorectomy	2 (3.2%)
Vaginal (no. =9)	Vaginal hysterectomy with BSO	7 (11.3%)
	Vaginal hysterectomy with preservation of both ovaries	2 (3.2%)

Indications	Total number of cases with each indication	Hysterectomy (n = 62)
Uterine fibroid	34	19 (30.6%)
Post-menopausal bleeding	24	18 (29%)
Peri menopausal bleeding	15	10 (16.1%)
Adnexal mass	10	7 (11.3%)
Uterine prolapse	6	3 (4.8%)
Endometrial polyp	7	2 (3.2%)
Adenomyosis	2	2 (3.2%)
Suspicious endometrial cancer	1	1 (1.6%)

TAH: Total abdominal hysterectomy, BSO: Bilateral salpingo-oophorectomy, BS: bilateral salpingectomy [#]TAH with unilateral salpingectomy was done for a patient who had one tube, *Significant p value

Table (4): Distribution of D and C subtypes and its relationship with gynecological indications

D and C	Total cases (n=33)	
D and C biopsy	19 (57.6%)	
Fractional biopsy	9 (27.3%)	
Endometrial polypectomy with D and C	3 (9.1%)	
Cervical polypectomy with D and C	2 (6.1%)	
Indications	**Total number of cases with each indication**	**D and C (n = 33)**
Post-menopausal bleeding	24	9 (27.3%)
Peri-menopausal bleeding	15	9 (27.3%)
Myoma	34	5 (15.2%)
Endometrial polyp	7	4 (12.1%)
Metrrorhagia	4	3 (9.1%)
Cervical polyp	2	2 (6.1%)
Endometrial mass	1	1 (3%)

D and C: Dilatation and curettage, *Significant p value

Table (5): Distribution of the gynecological operations in the study participants

Ovarian operations (n =82)	n (%)
Ovarian operations through laparoscopy	**65 (79.3%)**
Ovarian cystectomy	34 (52.3%)
Ovarian Drilling	31 (47.69%)
- Bilateral	29 (93.5%)
- Unilateal	2 (6.45%)
Ovarian operations through laparotomy	**17 (20.7%)**
Ovarian cystectomy	7 (41.18%)
Ovariotomy for dermoid cyst	1 (5.88%)
Oophorectomy	1 (5.88%)
Genital prolapse surgeries (n =34)	**n (%)**
Classical repair	8 (23.53%)
Sacropexy for uterine prolapse	6 (17.65%)
Vaginal hysterectomy for uterine prolapse	6 (17.65%)
Fothergill operation	4 (11.76%)
Anterior repair	4 (11.76%)
Classical repair with Kelly's suture	2 (5.88%)
Posterior repair	2 (5.88%)
Repair of complete perineal tear	2 (5.88%)
Hysteroscopy (n =9)	**n (%)**
Therapeutic	**5 (55.56%)**
Resection of uterine septum	3 (60%)
Polypectomy (endometrial)	2 (40%)
Diagnostic	**4 (44.44%)**
Exploration (n =13)	**n (%)**
Ovarian cyst	7 (53.85%)
Rudimentary horn	2 (15.38%)
Tubo ovarian mass	2 (15.38%)
Ovarian mass	2 (15.38%)
Abdominal myomectomy (n =13)	**13 (100%)**
Infrequently performed gynecological operations	**n (%)**
Operations for the hymen	**4 (2.37%)**
Defloration injury repair	2 (50.0%)
Hymenotomy for hematoclopus and hematometra	2 (50.0%)
Removal of missed IUD	**4 (2.37%)**
Through laparoscopy	2 (50.0**%**)
Through laparotomy	2 (50.0**%**)
Resection of rudimentary horn	**4 (2.37%)**
Vulval operations (Clitorial cystectomy)	**4 (2.37%)**
Salpingectomy	**2 (1.18%)**

Table (6): Distribution of the studied cases according to the complications

Complications		n (%)
Intraoperative (blood loss >1000mL)		3 (42.9%)
Postoperative	Blood transfusion	2 (28.57%)
	Distension (ileus)	1 (14.29%)
	2 ry suturing	1 (14.29%)

[#]: from the total number of reported complications

Table (7): Descriptive analysis of the studied cases according to days of hospital stay and days of pre-operative stay in each type of operation

	Mean ± SD		Min. – Max	
Days of hospital stay	7.64±4.99		1.0 – 29.0	
Days of pre-operative stay	5.51±4.53		1.0 – 27.0	
Type of operations	**Days of total hospital stay**		**Days of pre-operative hospital stay**	
	Mean ± SD	**Min.-Max.**	**Mean ± SD**	**Min.-Max.**
Hysterectomy	10.63 ± 4.96	3.0- 29.0	8.13 ± 4.87	1.0 – 27.0
Abdominal myomectomy	9.14 ± 4.53	4.0-15.0	6.43 ± 4.24	3.0 – 13.0
Genitals prolapse surgeries	8.07 ± 3.25	(4.0-15.0	6.42 ± 6.65	1.0 – 27.0
D&C operations	8.06 ± 7.08	1.0 -29.0	5.93 ± 3.08	2.0 – 13.0
Resection of rudimentary horn	6.50 ± 0.71	6.0 - 7.0	4.50 ± 0.71	4.0 – 5.0
Hysteroscopy	6.40 ± 6.95	1.0 - 14.0	4.20 ± 5.22	1.0 – 13.0
Laparoscopy	5.76 ± 3.41	2.0-14.0	3.87 ± 3.18	1.0 – 13.0
Exploration	5.43 ± 1.81	3.0 – 8.0	3.0 ± 1.53	1.0 – 5.0
Ovarian operations	4.89 ± 1.96	3.0- 8.0	2.56 ± 1.67	1.0 – 6.0
Operations for the hymen	3.0 ± 2.83	1.0- 5.0	1.50 ± 0.71	1.0 – 2.0
Vulval operations	1.0 ± 0.0	1.0 -1.0	1.0 ± 0.0	1.0 – 1.0

D and C: Dilatation and curettage

D and C biopsy was the most common subtype of D and C operations, and it was done in 19 (57.6%) cases. Postmenopausal bleeding, peri-menopausal bleeding, endometrial polyp, metrorrhagia, and cervical polyp were significant indications for the dilatation and curettage operations and each was the indication in 9 (27.3%), 9 (27.3%), 4 (12.1%), 3 (9.1%), and 2 (6.1%) cases respectively. Peri-menopausal bleeding was statistically significantly higher than the others (table 4).

Laparoscopic ovarian cystectomy was the most frequent type of the ovarian operations, and it was in 34 (52.3%) cases. Classical repair was the most common type of the genital prolapses surgeries and it was in 8 (25.53%) cases. Therapeutic hysteroscopic operations were more frequent than the diagnostic hysteroscopic operations and the therapeutic hysteroscopic resection of uterine septum was done more than the therapeutic hysteroscopic polypectomy.

The most of cases who underwent exploration were with ovarian cyst and it was in 7 (53.85%) cases. Abdominal myomectomy was done in a considerable number in 13 (100%) cases at the year of 2017 (table 5). Regarding the reported complications associated with gynecological operations, Intraoperative blood loss was the most common complication occurred to the patients operated for gynecological problems in 2017 in 3 (42.9%) cases followed by post operative blood transfusion in 2 (28.57%) cases (table 6). The longest duration of hospital stay was 29 days with a median duration of 7 days and the longest duration of pre-operative stay was 27 days with a median duration of 4 days. Hysterectomy had the longest total hospital stay followed by abdominal myomectomy with a mean of 10.63 ± 4.96 days and 9.14 ± 4.56 days respectively. Hysterectomy had the longest pre-operative hospital stay followed by abdominal myomectomy with a mean of 8.13 ± 4.87 and 6.43 ± 4.24 days respectively. Vulval operations had the least pre-operative hospital stay (table 7).

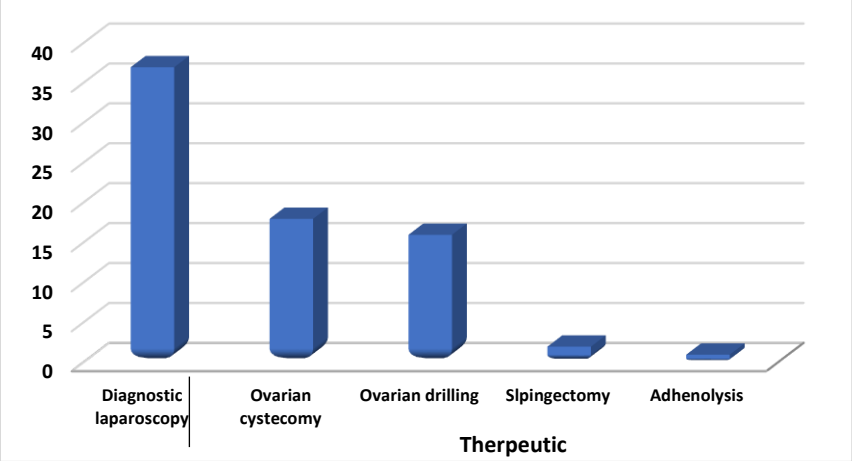

Figure (1): Distribution of the laparoscopic surgeries

DISCUSSION

Surgical audit is an important strategy in maintaining standards in surgical care at the clinical level. Audit of all gynecological procedures as one of the commonest operations performed in medical practice is not routinely done in developing countries. Clinical audit is one of the fundamental principles of clinical governance, the process by which clinicians improve the quality of the care they provide and it also help to direct resource allocation, and can serve to improve clinical response and outcomes[5].Therefore, this work was carried out to audit the gynecological operations that was performed at Al-Zahraa University Hospital during the year of 2017 to assess their indications, complications and days of hospital stay for each type of operations.

In this study, it was found that most common age group admitted at the year of 2017 was from 31 to 50 years and vaginal bleeding was the most common patients' complaint during 2017.These results are coinciding with those of Adesina et al.[6] who showed that mean age of the patients was 33.04±5.2 years. Also, Al-Shyal et al.[7] showed that postmenopausal bleeding was the most common indication.But in contrast to these results, Adesina et al.[6] showed that commonest complaints were secondary infertility (51.9%), primary infertility (24.1%), and chronic pelvic pain (11.2%).

In the present study, the number of the diagnostic laparoscopic surgeries was equal to the number of the therapeutic laparoscopic surgeries. This result is disagreement with study done by Adesina et al.[6] which revealed that diagnostic laparoscopies were done in 15.6% and Omokanye et al.[8] showed that (20%) of total laparoscopic surgeries included in their study were diagnostic laparoscopies, 80% of the total procedures were therapeutic laparoscopies.

In the present study, ovarian cystectomy was the most common subtype of the laparoscopic surgeries.The findings of Kim et al.[9] are in agreement with these results as they mentioned thatovarian cystectomy (49.1%) was the most common subtype of the laparoscopic surgeries.

In our study it was also found that ovarian cysts, polycystic ovaries and infertility were statistically significant indications for the laparoscopic surgeries.Similar results were reported by Adesina et al.[6] who showed that infertility was the indication in 76.0% of cases with secondary infertility being the commonest. This is similar to findings by Nasir et al.[10] in Nigeria and other developing countries.the present study is not in coinciding with reportsof Khatuja et al.[11] from industrialized countries where pelvic pain was the commonest indication.

The gynecologists performed hysterectomy through different routes like abdominally or vaginally. Selection of the route depends on surgeon's choice, indication of operation, type of disease and patient desire. In the present study, it was found that abdominal hysterectomy was more frequent than vaginal hysterectomy and total abdominal hysterectomy with bilateral salpingo-oophorectomy was the most common subtype of hysterectomy.The present study agrees with the study done by Bhat et al. [12] that showed that TAH percentage was (76.6%) of total hysterectomies operations included in their study while STAH percentage was (4%). Gabriel et al.[13] showed thatmajority of hysterectomies were carried out via the abdominal route, while the vaginal route constituted only 22.4%. This rate of vaginal hysterectomy was similar to 21% found in Obiechina et al.[14].

In the present study, uterine fibroids and post-menopausal bleeding were statistically significantly higher than the others as indications for hysterectomy.This is coinciding with the result of study done by Anbreen et al.[15] that showed the most common indication in abdominal approach was fibroid uterus (32%); and also agrees with the study from India done by Pandey et al. [16] which stated that most common indication for hysterectomy was symptomatic fibroid uterus (39.9%).

In the present study, it was found that D&C biopsy was the most common subtype of dilatation and curettage operations.Matching these results, Al-Shyal et al.[7] reported that D&C biopsy was the most common subtype of dilatation and curettage operations accounting for 75.6% and 82.9% respectively.Also, in concordance with the result of the study done by Chambers et al.[17] that showed D&C was done in 23% of woman had surgical management.

Peri-menopausal bleeding was statistically significantly higher than the other indications as for dilatation and curettage operations.And this result is in agreement with a study done by Al-Shyal et al.[7] that showed that the most common indications for D&C in 2018 & 2019 is postmenopausal bleeding which represents 29.3% and 29.2% respectively.

In the present study, laparoscopic ovarian cystectomy was the most frequent type of the ovarian operations. The single case of oophorectomy had a teratoma like mass and both of the mass and the ovary were removed and the operation recorded in the file as oophorectomy. Also, it was found that classical repair was the most common type of the genital prolapse surgeries in agreement with these results, Al-Shyal et al.[7] showed that the classical repair was the most common operation of genital prolapse surgeries which represents 75.1% & 52%,

followed by anterior repair which represents 8.3%, 4.0%, posterior repair which represents 0.0%.8.0% in 2018 and 2019 respectively but it was not in line with study result that was done in Nigeria by Yakubu et al.[18] that showed Anterior colporrhaphy seen in 7.7%, posterior colpoperineorrhaphy 6.6%, and combined anterior colporrhaphy and posterior colpoperineorrhaphy 5.5%.

In the current study, therapeutic hysteroscopic operations were more frequent than the diagnostic hysteroscopic operations and the therapeutic hysteroscopic resection of uterine septum was done more than the therapeutic hysteroscopic polypectomy. This study result is not coinciding with a study done by Okohue et al.[19] which showed that (35.9%) of the cases underwent hysteroscopy in their study were polypectomy while the present study showed hysteroscopic polypectomy by (20%).

Abdominal myomectomy was done in a considerable number 13 cases at the year of 2017. This study result is in agreement with the result of the study done by Geidam et al. [20] in which myomectomy represents 3.34%. The present study showed that operations for the hymen, removal of IUCD,resection of rudimentary horn, vulval operations and salpingectomywere done infrequently.

In the present study, blood transfusion was the most common complication occurred to the patients operated for gynecological problems at 2017. Intraoperative complications were (42.9%) of the total complications reported and all were blood loss >1000mL, and post-operative complications by percentage of (57.1%) of the total complications reported. This is in contrast with a study done by Pandey et al. [16] who reported that the intraoperative complications were 64.4% of the total complications reported; blood loss >1000mL was the most common (46.7%) followed by bladder injury (11.1%), bowel injury (4.4%) and ureteric injury (2.2%) and post-operative complications were (35.6%) of the total complications reported.

In the present study, we found that hysterectomy had the longest total hospital stay followed by abdominal myomectomy. Vulval operations had the least total hospital stay. Total hospital stays of cases that had a removal of IUD through laparoscopy was less than the total hospital stays of cases who had a removal of IUD through laparotomy. Carey et al.[21]showed that debulking procedures (advanced ovarian carcinoma (Stage III or higher) or a staging procedure for early-stage ovarian cancer) had the longest median LOS (12 days), whereas the laparoscopic surgery category had the shortest median LOS (1 day).Miskry et al.[22] showed that vaginal hysterectomy was associated with a reduction in hospital stay compared to abdominal hysterectomy (median stay 3 days vs. 5 days, p = 0.01).Chapron et al.[23] showed thatthe mean duration of the hospital stay was significantly lower with total laparoscopic hysterectomy (TLH), 3.061.6 days versus 8.161.8 days.

CONCLUSION

Laparoscopic ovarian cystectomy was the most frequent type of the ovarian operations. Classical repair was the most common type of the genital prolapses surgeries. Therapeutic hysteroscopic operations were more frequent than the diagnostic hysteroscopic operations. Total abdominal hysterectomy with bilateral salpingo-oophorectomy was the most common subtype of hysterectomy. D&C biopsy was the most common subtype of dilatation and curettage operations. Ovarian cysts, polycystic ovaries and infertility were a statistically significant indications for the laparoscopic surgeries. Uterine fibroids, post-menopausal bleeding, peri menopausal bleeding, and adnexal mass were statistically significant indications for Hysterectomy. Post-menopausal bleeding, peri-menopausal bleeding, endometrial polyp, metrorrhagia, and cervical polyp were significant indications for the dilatation and curettage operations. Intraoperative blood loss was the most common complication occurred to the patients operated for gynecological problems. Hysterectomy had the longest total hospital stay and pre-operative hospital stay followed by abdominal myomectomy.Vulval operations had the least pre-operative hospital stay. Improving the technique of data storage is recommended. This may be done with the help of the computer-based health records system. A more frequent audit of departmental services is also recommended.

Financial support and sponsorship: This work not funded from any governmental or non-governmental agencies

Conflict of Interest: No direct or indirect conflict of interest

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الملخص العربي

مراجعة الجراحات النسائية في مستشفى الزهراء الجامعي عام 2017

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ملخص البحث

الخلفية: التدقيق الجراحي هو فحص منهجي ونقدي للجودة الجراحية يتم فحصه من قبل الأقران مقابل معايير محددة أو اعتراف معياري، ثم يتم استخدامه بهدف نهائي هو زيادة جودة رعاية المرضى من خلال تعزيز الممارسة الجراحية.

الهدف: تقييم فعالية وكفاءة العمليات الجراحية النسائية التي أجريت في مستشفى الزهراء الجامعي من 1 يناير 2017 إلى 31 ديسمبر 2017.

الطرق: تضمنت هذه الدراسة جميع العمليات النسائية التي أجريت في قسم أمراض النساء والتوليد في مستشفى الزهراء الجامعي في عام 2017. تم جمع السجلات التاريخية وملفات المرضى المقبولين لإجراءات أمراض النساء. تم جمع البيانات المتعلقة بالعمر، التكافؤ، تقديم الشكوى، التشخيص قبل الجراحة، نوع العمليات، المضاعفات أثناء وبعد العملية الجراحية.

النتائج: كانت أكياس المبيض وتكيس المبايض والعقم مؤشرات لعمليات الجراحة بالمنظار في 24 (52.2٪) و 12 (26.1٪) و 9 (19.6٪) على التوالي. الأورام الليفية الرحمية ونزيف ما بعد انقطاع الطمث ونزيف ما حول انقطاع الطمث ومؤشرات كتلة adnexal لاستئصال الرحم في 19 (30.6٪) و 18 (29٪) و 10 (16.1٪) و 7 (11.3٪) على التوالي. نزيف ما بعد انقطاع الطمث، نزيف ما قبل انقطاع الطمث، ورم بطانة الرحم، النزيف الرحمي، ومؤشرات زوائد عنق الرحم لعمليات التوسيع والكشط في 9 (27.3٪)، 9 (27.3٪)، 4 (12.1٪)، 3 (9.1٪)، و 2 (6.1٪) حالات على التوالي. كان فقدان الدم هو أكثر المضاعفات الجراحية شيوعًا في 3 حالات (42.9٪). حقق استئصال الرحم أطول مدة إقامة في المستشفى ومستشفى قبل الجراحة بمتوسط 10.63 ± 4.96 و 8.13 ± 4.87 يوم على التوالي.

الاستنتاجات: كانت أكثر الإجراءات النسائية انتشارًا هي استئصال المثانة بالمنظار، وعمليات تنظير الرحم العلاجية، واستئصال الرحم الكلي للبطن مع استئصال البوق والمبيض الثنائي، والتوسيع والكشط الخزعات. كانت المضاعفات الجراحية الأكثر انتشارًا هي فقدان الدم أثناء العملية. احتاج استئصال الرحم إلى أقصى درجات الإقامة في المستشفى والاستشفاء قبل الجراحة.

الكلمات المفتاحية: التدقيق، أمراض النساء، العمليات الجراحية.

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