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Profile of Five Types of Gynecological Bleeding Cases at UKI Hospital

Abitmer Gultom¹, Jumaini Andriana Sihombing²

¹Department of Obstetrics and Gynecology, Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia

²Department of Anatomy, Faculty of Medicine, Universitas Kristen Indonesia, Jakarta, Indonesia

Corresponding author: Abitmer Gultom

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ABSTRACT

This study provides an overview of cases of gynecological bleeding that occurred at RSU [22] from 01 January 2012 to 31 December 2014. The method used in the research was a descriptive study with a retrospective, exploratory, and cross-sectional approach. To simplify the research process, the author only examined five types of cases that occurred at RSU UKI, namely uterine myoma, adenomyosis, polyps, cervical cancer, and endometrial cancer. Gynecological bleeding is a disease that is very often encountered today. The study's results based on the period found 69 cases of gynecological bleeding. Around 66.7% (46 cases) were sufferers of uterine myoma, 13.0% (9 cases) had adenomyosis, 11.6% (8 cases) had polyps, 7.2% (5 cases) had cervical cancer, and 1.4% (1 case) had endometrial cancer. Until now, the number of incidents has been increasing from year to year, and this is very likely based on a person's risk factors for the occurrence of a disease. Of these gynecological bleeding disorders, it was found that the highest incidence was in the 40 - 44-year age group [20]. From the results of laboratory examinations, there is a close relationship between gynecological bleeding and the frequency of anemia; it was found that 56.5% of patients with gynecological bleeding disorders experienced anemia. The author recommends routine examination of the uterine organs to detect them as early as possible.

Keywords: Gynecological bleeding, uterine myoma, adenomyosis, cervical cancer, polyps, endometrial cancer

INTRODUCTION

Bleeding that occurs during the menstrual cycle is a physiological thing from menarche to menopause. The first menstruation experienced by a woman is called menarche, which generally occurs around the age of 9-16 years and ends at menopause around the age of 50 years.[1] Menstruation is normal if the menstrual cycle is not less than 24 days but does not exceed 35 days; the average length of menstruation is 3-7 days, with the amount of blood during menstruation not exceeding 80 ml. Menarche is a transition from childhood to adulthood. In the clinical sense, menstruation is assessed based on three things. The first is about the menstrual cycle, namely the distance between the first day of menstruation and the next day. Second, the length of menstruation, namely the distance from the first day until menstrual bleeding stops, and third, the amount of blood released during one menstrual cycle.[2]

Apart from being physiological, vaginal bleeding in women [33] can also be pathological, one of which is abnormal uterine bleeding or dysfunctional uterine bleeding. Uterine bleeding can occur due to several things, such as malignant and benign tumors, genital infections, and several other disorders. The two things that most often cause bleeding are structural abnormalities in the reproductive system and ovulation disorders.[3]

According to data from the Dharmais Cancer [27] Hospital based on four consecutive years, the estimated number of new cases of female

gender in 2010-2013, the highest prevalence of gynecological cancer is cervical cancer with 1295 new cases, followed by ovarian cancer with 537 new cases. [4] To date, it is estimated that the prevalence of cervical cancer is only 500,000 people worldwide, some of which occur in developing countries and are the leading cause of death from cancer. The incidence and mortality of cervical cancer in the world ranks second after breast cancer in women. Nearly 80% of cases occur in developing countries. Before 1930, cases of cervical cancer had fallen drastically since the introduction of the pap smear screening technique by Panikolau. [5] Endometrial cancer is a gynecological cancer that also occurs frequently in the Western world. It is estimated that around 39,000 new cases occurred in the United States during 2002. With mortality reaching around 3.4 per 100,000 women, it is known that the prognosis for this cancer is quite good if it is caught early and treated appropriately. Meanwhile, the 5-year survival rate reached 84%. [6] Generally, these cases occur around 60 years of age because 75% of these cancers occur during the postmenopausal period. However, 25% of cases occur before menopause, 15% occur before the age of 40 years. In developed countries, the incidence of endometrial cancer occurs in 2/100,000 women under the age of 40 years and increases to 40-50/100,000 women over the age of 60 years. In Indonesia, the latest research found that the prevalence of endometrial cancer at RSCM Jakarta reached 7.2% of cases per year. [7]

Uterine bleeding is a problem that is often encountered by obstetricians, gynecologists, and primary care doctors. Problems that patients often complain about from bleeding involve the length of the period, the duration of the period, and the amount of bleeding. Excessive bleeding can cause economic difficulties, interference with work and physical activity, and sexual dysfunction. [8] The incidence of cancer doubles at the age of 35-39 years, so the American College of Obstetricians and Gynecologists (ACOG) recommends evaluation in women aged 35 years who experience uterine bleeding. [9] The

problem formulation in this research is "What is the frequency of cases of gynecological bleeding at RSU UKI for three years, from 01 January 2012 to 31 December 2014? The research aims to determine and explain the frequency of cases of gynecological bleeding at RSU UKI for three years, namely from 01 January 2012 to 31 December 2014.

LITERATURE REVIEW

The proliferative phase is the phase that occurs after the menstrual phase. After menstrual blood stops, what remains is a thin layer of endometrial tissue; estrogen begins to be produced again by the ovaries and will stimulate the thickening of the endometrial tissue. The surface of the endometrium will re-epithelialize within 4 to 7 days after menstruation. Then, during the next week and a half before ovulation occurs, the thickness of the endometrium increases greatly due to the increase in the number of stromal cells and the progressive growth of endometrial glands and new blood vessels into the endometrium. High peak levels of estrogen will trigger an LH surge, which causes ovulation. [15]

The next phase is the secretory phase. After ovulation, the follicular corpus of the ovum turns into the corpus luteum, where the corpus luteum will produce large amounts of progesterone and estrogen. Progesterone changes and stimulates the endometrium to a thick size prepared by estrogen to become rich in blood vessels and glycogen. This period is called the secretory phase because the endometrial tissue glands actively secrete glycogen; this is the endometrium's fertile period in preparation for the growth and development of the embryo's life. If fertilization and implantation do not occur, the corpus luteum will degenerate, and a new menstrual phase will begin again. To understand more about the menstrual cycle, you can see the graph in Figure 1. [11]

Definition of Gynecological Bleeding

Gynecological bleeding can be of two types, namely abnormal uterine bleeding and dysfunctional uterine bleeding. Abnormal uterine bleeding can be defined as bleeding

that occurs in conditions such as bleeding outside the menstrual cycle or bleeding that occurs during the menstrual cycle in the form of blood spots, bleeding after sex or due to foreign body trauma, excessive menstrual cycle bleeding, or prolonged periods, and menstrual cycle bleeding whose period is less than 21 days and more than 35 days. [12] Dysfunctional uterine bleeding is bleeding that occurs without any organic cause. Most patients with dysfunctional bleeding have anovulatory cycles. Secondary anovulation

occurs due to the failure of ovarian follicle maturation to reach ovulation and the formation of the corpus luteum. [13] The hypothalamus gland, pituitary gland, ovarian gland, and endometrial tissue also influence it. The term dysfunctional uterine bleeding has been used for a long time but has different and varied meanings. Abnormal uterine bleeding can also be defined as a difference in the time interval between menstrual cycles or the duration of menstruation, as described in Table 1. [14]

Table 1. Definition of abnormal uterine bleeding

Definition of Abnormal Uterine Bleeding	
Amenorrhea	There is no cycle of at least six months
Oligomenorrhea	Frequency of more than 35 days
Polymenorrhea	Frequency less than 24 days
Menorrhagia	Excessive bleeding or duration of more than seven days
Metrorrhagia	Intramenstrual bleeding of normal duration
Menometrorrhagia	Bleeding with a longer duration than normal

The classification of abnormal uterine bleeding uses the system issued by FIGO, which can be seen in Figure 10. Nine main categories can be arranged with the acronym "PALM-COEIN": Polyp (polyps), Adenomyosis, Leiomyoma (myoma), Malignancy, and hyperplasia (malignancy), and hyperplasia), Coagulopathy, Ovulatory dysfunction, Endometrial, Iatrogenic, and Not Yet Classified. [15]

- a. Polyp (polyps): This category can help classify gynecological bleeding, especially in cases of polyps. This grouping can also have subclassifications of the combination, dimensions, location, number, morphology, and histopathology of polyps. [15]
- b. Adenomyosis: Generally, the criteria for adenomyosis are based on histopathological evaluation of the depth of endometrial tissue found within the myometrium. These criteria are obtained based on the results of the specimens examined as well as imaging results from radiological examinations. [15]
- c. Leiomyoma (myoma): The category is divided into primary and secondary classifications. Primary classification determines the position, number, and size of the tumor masses obtained. Secondary

- classification to differentiate the location of the myoma in the uterine cavity, namely submucosal, subserosal, or intramural. [15]
- d. Malignancy & hyperplasia (malignancy & hyperplasia): Categorization in malignancy and hyperplasia does not replace the classification of endometrial neoplasia and hyperplasia that WHO or FIGO itself has issued. But in general, malignant processes and hyperplasia can be categorized using this category, then with subclassifications from the WHO and FIGO systems. [15]
- e. Coagulopathy (coagulopathy): Coagulopathy refers to a systemic problem that causes gynecological bleeding. About 13% of gynecological bleeding problems in women are caused by hemostasis problems such as von Willebrand disease. Systemic abnormalities are also considered and considered as a differential diagnosis in cases of gynecological bleeding. [15]
- f. Ovulatory dysfunction (ovulation dysfunction): Ovulatory dysfunction in gynecological bleeding can be caused by hormonal problems. Ovulation disorders can range from amenorrhea to heavy and unpredictable menstrual bleeding. Some clinical manifestations are related to the lack or disappearance of the progesterone

hormone production cycle from the corpus luteum. [15]

- g. Endometrial (endometrium): If symptoms of heavy menstrual bleeding are found, it is possible that there is a primary problem in the regulation of local homeostatic mechanisms of endometrial tissue. Research has found evidence that a lack of local production of vasoconstrictors such as endothelin-1 and prostaglandin F2a, as well as increased lysis of the endometrium due to the production of plasminogen activator, can be a problem in bleeding. Secondary disorders in the form of infection, inflammation, and vascularization problems in the endometrial tissue can complicate primary endometrial disorders. [15]
- h. Iatrogenic (iatrogenic): Iatrogenic problems can occur through several mechanisms, such as the use of drugs that have a direct impact on the endometrium, systemic drugs that affect the ovulatory cycle, and blood coagulation mechanisms, as well as the installation of intrauterine contraceptives. [15]
- i. Not yet classified: Some gynecological bleeding problems cannot be ascertained in each individual. [15]

Abnormal uterine bleeding in a woman's reproductive age is a clinical manifestation of several types of pathological disorders. So far, the absence of a universally accepted classification method has resulted in a lack of basic clinical knowledge of patients and rational therapeutic applications. In the past, several staging and classification systems were used and functioned for a doctor to carry out diagnosis and therapy. The new system created by FIGO is designed to be practically useful for clinicians worldwide to classify patients with abnormal uterine bleeding. [15]

Several conditions can cause gynecological bleeding. Among others are :

- a. Adenomyosis: Adenomyosis is a benign (non-cancerous) tumor in which the endometrial tissue in the uterus invades the uterine muscle tissue (myometrium), and symptoms that arise in patients can include painful vaginal bleeding during the

menstrual period (dysmenorrhea). [16] The incidence of adenomyosis varies between 8-40% found on examination of all hysterectomy specimens.

- b. PID (Pelvic Inflammatory Disease): PID is an infection of the female reproductive organs and is also the most common disease. PID occurs when bacteria enter the vagina and cervix, then enter the uterus, ovaries, and fallopian tubes. Bacteria can also cause abscesses if not treated quickly and appropriately. [17]
- c. Trichomoniasis: Trichomoniasis is an infection of the lower urogenital tract in women and men caused by *Trichomonas vaginalis*, and transmission is usually through sexual intercourse. In women, red granulations can be seen on the walls of the vagina and cervix and are known as strawberry appearance and can be accompanied by symptoms of dyspareunia, intermenstrual bleeding, and postcoital bleeding. [18]
- d. Gonorrhea: This disease infection is caused by *Neisseria Gonorrhoeae* bacteria which enter through the cervix so that it can cause pelvic inflammatory disease, the symptoms of which can include dysuria, vaginal discharge, and irregular or abnormal menstruation. Apart from salpingitis, other types of pelvic inflammatory disease are vaginitis, endometritis, myometritis, parametritis, cervicitis, adnexitis, and other tissues. [19]
- e. Chlamydia: Chlamydia is a type of PID and is also an STD (Sexually Transmitted Disease). This disease is caused by the bacterium *Chlamydia trachomatis*. [29] Many patients suffering from chlamydia do not experience any symptoms. Research shows that 70-80% of women infected with chlamydia do not experience symptoms. Symptoms that can arise include dysuria, lower abdominal pain, bleeding after sex, bleeding during menstruation, and menstrual cycle disorders.
- f. Intrauterine Contraceptive Device (IUD): Intrauterine Device (IUD) is a type of contraception. Side effects after IUD insertion can include abnormal bleeding,

- amenorrhea, dysmenorrhea, and changes in menstrual periods. [21] Bleeding can also occur after removing the IUD, usually due to pulling, which causes trauma to the uterus or cervix. ¹⁹
- g. Myoma: Fibroids, also called leiomyomas or myomas, are benign tumors that grow from the uterus muscle tissue (myometrium). Symptoms that usually arise include changes in menstruation, pain, enlargement of the uterus, miscarriage, or infertility.[22] Fibroids can grow in the myometrium layer itself (intramural), occupy the endometrium layer (submucosa), or grow under the serosa layer of the uterus (subserosa), which can grow outward to form a stalk.
 - h. Polyps: Endometrial polyps can grow anywhere in the endometrial tissue area. Usually, polyps are discovered accidentally during a routine examination; patients come with complaints of bleeding from the uterus after sex or during intermenstrual bleeding. To see clearly, a hysteroscopy can be performed for examination. During premenopause or menopause, it is necessary to consider endometrial hyperplasia or adenocarcinoma. [23]
 - i. Endometriosis: Endometriosis is the most common in women's reproductive years. Endometriosis is a condition in which endometrial tissue grows outside the uterus, usually occurring at 30-40 years old. [24] Areas of endometrial tissue growing in endometriosis can be found in the peritoneum, ovaries, fallopian tubes, urinary bladder, intestines, and around other uterine organs. The main symptom felt is pain in the pelvic cavity, especially during the menstrual period; pain can also be felt during sex. Pain can also be felt along the intestine if the endometrium grows on other tissue such as the intestine.
 - j. Systemic disease: Systemic disease is not something that often causes bleeding, but it should still be a consideration for a doctor to check for possible underlying abnormalities.
 - k. Liver Disease: Patients with liver disease such as cirrhosis in alcohol can damage liver function, thereby disrupting the balance in synthesizing estrogen, decreasing production, and decreasing the synthesis of blood coagulation factors. Patients with liver dysfunction may present with complaints of amenorrhea, oligomenorrhea, and metrorrhagia. Patients with liver transplant therapy can produce normal results. [25]
 - l. Renal Disease: Patients with dysfunctional uterine bleeding may have associated renal abnormalities, but the pattern is unpredictable. Patients on hemodialysis tend to have amenorrhoea and enter menopause earlier. According to research, it is reported that patients with kidney disorders experience heavier bleeding before undergoing hemodialysis; this is because heparin is given as a blood anticoagulant, and patients with kidney transplants have a better prognosis. [26]
 - m. Anorexia Nervosa: Fluctuations in body weight affect ovarian function and menstrual function. Patients suffering from anorexia nervosa or excessive weight loss may experience amenorrhea. FSH, LH, TSH, and estradiol can decrease, and testosterone can increase. GH and cortisol increase, gonadotropin response increases due to response to GnRH stimulation, and TSH decreases due to TRH depression. Increasing and repairing body mass can restore hormonal imbalances to normal.[27]
 - n. Postmenopausal bleeding: Menopause occurs when ovarian function and menstruation stop; the average age at which menopause occurs is around 51 years. During premenopause, the amount of estrogen decreases, along with a decrease in the amount of androgens and their precursors. The late premenopausal period slightly increases FSH, which then decreases over time. These hormonal changes are often accompanied by physical changes such as irregular menstrual bleeding, insomnia, etc. Patients who present with postmenopausal bleeding

need to be properly examined to assess the source of the bleeding.

- o. Cancer: Several cancers can cause gynecological bleeding (Vaginal Cancer, Vaginal Endometrial Cancer, Cervical Cancer, and Trauma).

Gynecological bleeding is confirmed by several examinations, starting from anamnesis, physical examination, and supporting examinations. Please note that abnormal uterine bleeding or dysfunctional uterine bleeding is not a diagnosis but rather a complaint that requires careful evaluation to look for the causal factors of the bleeding complaints obtained. Gynecological examinations are carried out to exclude organic disorders that can cause gynecological bleeding, for example, myoma, polyps, ulcers, trauma, erosion, tumors, and malignancy. The evaluation to determine the diagnosis often overlaps with the treatment performed for gynecological bleeding. Systematic evaluation of bleeding can be seen in graphic figure 3. Diagnosis is made by looking for the menstrual history of patients with a family history of the disease. Anamnesis will be very helpful if the patient knows the menstrual cycle, such as date, duration, and type of bleeding (regular, moderate, heavy, or spotting). A physical examination and blood tests are also required. [28] Examinations can include sonohysterography, ultrasound, MRI, hysteroscopy, and biopsy of endometrial tissue. Laboratory tests can be carried out to check blood and hormone levels. Laboratory tests are highly recommended for patients who come with complaints of uterine bleeding. Some of the laboratory tests performed are listed in Table 2.

Selection in the management of uterine bleeding is based on the cause of bleeding, the accuracy of overall consideration, clinical stability, the desire to have children in the future, and the underlying medical problem. Medical therapy is considered the most adequate treatment. However, some circumstances warrant surgery.

- a. Medication: Hormonal therapy is the primary choice and consideration in the treatment of dysfunctional uterine

bleeding. They can include IV injections with estrogen combined with contraceptives and oral progestin. In a trial with 34 women, IV injections could stop 72% of bleeding cases within 8 hours. According to research, the combination of progestin and oral contraceptives was compared with recipients who used medroxyprogesterone acetate, showing that 88% of recipients who used combination oral contraceptives had their bleeding stopped. The bleeding stopped for those who used medroxyprogesterone acetate in 76% of cases. [29] Antifibrinolytic drugs such as tranexamic acid work by inhibiting fibrin degradation so that they are effective in the management of chronic bleeding. [29] Table 3 shows the types and doses of drugs used in therapy.

- b. Surgery: Surgery is performed based on the patient's clinical condition, severity of bleeding, contraindications to medical treatment, lack of response to medical therapy, and underlying medical conditions. Surgical options include dilation and curettage, endometrial ablation, uterine artery embolization, and hysterectomy. Specific treatments, such as hysteroscopy with dilatation and curettage, polypectomy, or myomectomy, can be performed if there is an abnormal structure as the cause of bleeding. Several surgical options need to be considered for planning the next pregnancy, as total hysterectomy of the uterus means that the patient cannot plan the next pregnancy. [29] Complications that can occur in long-standing gynecological bleeding are anemia and infertility.

RESEARCH METHOD

This type of research is a descriptive study that is retrospective, exploratory, and cross-sectional. The location of this research is UKI General Hospital, Jakarta. The population of this study was all female patients with abnormal gynecological bleeding disorders at RSU UKI. The material taken to support this research was the medical records of female

patients at RSU UKI from 01 January 2012 to 31 December 2014. This study's data came from the medical records of all female patients who experienced gynecological bleeding disorders from 01 January 2012 to 31 December 2014. Researchers checked the data taken; all data was edited using the SPSS (Statistical Package for the Social Science) computer application program and tabulated the data, namely arranging the data into tables for analysis. All data was entered into the SPSS computer application (Statistical Package for the Social Science). Univariate analysis was carried out on each variable from the research results. This analysis produces a percentage of each variable.

RESULT AND DISCUSSION

The results of the findings obtained in the medical records section of RSU UKI found 129 cases of gynecological bleeding, which were divided into five types of disorders, namely uterine myoma, adenomyosis, uterine polyps, cervical cancer, and endometrial cancer. Around 65.9% (85 cases) were sufferers of uterine myoma, 13.1% (17 cases) had adenomyosis, 11.7% (15 cases) had polyps, 8.6% (11 cases) had cervical cancer, and 0.7% (1 case) had cancer endometrium. However, of the 129 cases, the researchers only included 69 patient cases for analysis; this was due to the lack of completeness of laboratory examination results at RSU UKI and the loss of medical record files, so some data could not be analyzed. Of the 69 cases arranged by year of occurrence, in 2012, there were 29 cases; in 2013, there were 26 cases, and in 2014 there were 14 cases. From the 69 patient data, 46 cases of uterine myoma (66.7%), 9 cases of adenomyosis (13.0%), 8 cases of polyps (11.6%), 5 cases of cervical cancer (7.2%), and 1 case of endometrial cancer (1.4%) were obtained.).

Table 2. Frequency distribution by year.

Year	Frequency	Percentage
2012	29	42.0
2013	26	37.7
2014	14	20.3
Total	69	100.0

A. Result

1. Patient characteristics:

- Age

Table 3. Age frequency distribution.

Age	Total Number of Cases	Percentage
20 - 24	2	2.8
25 - 29	0	0
30 - 34	0	0
35 - 39	14	20.2
40 - 44	19	27.5
45 - 49	11	15.9
50 - 54	14	20.2
55 - 59	7	10.1
> 60	2	2.8
Total	69	100

The age of sufferers of the five types of gynecological bleeding disorders with the highest frequency is the age group 40 – 44 years, with a total of 19 cases. In the next table, you can see the frequency of age groups based on each type of disorder

Table 3. Age frequency distribution in cases of adenomyosis.

Age	Number of Adenomyosis Cases	Percentage
35 – 39	3	33.3
40 – 44	2	22.2
45 – 49	1	11.1
50 – 54	2	22.2
55 – 59	1	11.1
Total	9	100.0

The most common age group for adenomyosis was found to be in the 35 – 39 year age group, namely 3 cases (33.3%).

Table 4. Age frequency distribution in cases of endometrial cancer.

Age	Number of Endometrial Cancer Cases	Percentage
55 – 59	1	100.0

The age of endometrial cancer was only found in the 55 - 59 year age group, namely, 1 case (100%).

Table 5. Age frequency distribution in cases of cervical cancer.

Age	Number of Cervical Cancer Cases	Percentage
35 – 39	1	20.0
40 – 44	1	20.0
50 – 54	1	20.0
> 60	2	40.0
Total	5	100.0

The age at which cervical cancer disorders were found to be highest was in the age group > 60 years, namely 2 cases (40%).

Table 6. Age frequency distribution in cases of cervical cancer.

Age	Number of Uterine Myoma Cases	Percentage
20 – 24	2	4.3
35 – 39	9	19.6
40 – 44	15	32.6
45 – 49	9	19.6
50 – 54	9	19.6
55 – 59	2	4.3
Total	46	100.0

The highest number of uterine myoma disorders was found in the 40 - 44 year age group, namely 15 cases (32.6%).

Table 7. Age frequency distribution of polyp cases.

Age	Number of Polyp Cases	Percentage
35 – 39	1	12.5
40 – 44	1	12.5
45 – 49	1	12.5
50 – 54	2	25.0
55 – 59	3	37.5
Total	8	100.0

The age at which polyps were found to be the most common ways in the 55 - 59 year age group, namely 3 cases (37.5%)

Table 8. Frequency distribution of education.

Level of education	Total	Percentage
Not completed in primary school	1	1.4
Completed elementary school	2	2.9
Completed junior high school	8	11.6
Completed senior high school	42	60.9
Completed Diploma	2	2.9
Completed Bachelor's degree	14	20.3
Total	69	100.0

The last education with the highest frequency was high school graduation, namely 42 patients.

Table 9. Occupational frequency distribution.

Job	Total	Percentage
Housewife	36	52.2
Student	1	1.4
Trader	2	2.9
Freelancer	1	1.4
Civil servants	15	21.7
Private sector worker	13	18.8
Jobless	1	1.4
Total	69	100.0

The job with the highest frequency is housewife, namely 36 patients.

Table 10. Frequency distribution of marital status.

Marital status	Total	Percentage
Not married	4	5.8
Married	63	91.3
Widow	2	2.9
Total	69	100.0

The marital status with the highest frequency was married, namely 63 patients.

2. Types of Abnormalities and Examination of Vital Signs

Table 11. Frequency distribution of types of disorders.

Types of Disorders	Total	Percentage
Adenomyosis	9	13.0
Endometrial Cancer	1	1.4
Cervical cancer	5	7.2
Uterine Myoma	46	66.7
Polyps	8	11.6
Total	69	100.0

The type of disorder suffered by female patients at RSU UKI with the highest frequency was Uterine Myoma, namely 46 patients.

Table 12. Distribution of blood pressure interpretations.

Blood pressure	Total	Percentage
Normal	41	59.4
Pre Hypertension	19	27.5
Stage 1 Hypertension	3	4.3
Stage 2 Hypertension	6	8.7
Total	69	100.0

In the results of patient blood pressure measurements, researchers used the blood pressure classification issued by the Joint National Committee (JNC 7). Normal results were obtained in 41 patients.

Normal results were obtained in 69 patients when pulse frequency was measured.

Table 13. Distribution of pulse frequency interpretations.

Pulse Frequency	Total	Percentage
Normal (60 – 100)	69	100.0
Tachycardia (> 100)	0	0.0
Bradycardia (< 60)	0	0.0
Total	69	100.0

Table 14. Distribution of temperature interpretations.

Temperature	Total	Percentage
Normal (36.0 – 37.5)	68	98.6
Abnormal (> 37.5)	1	1.4
Total	69	100.0

When measuring the temperature, normal results were obtained in 68 patients and an increase above normal temperature in 1 patient. It occurred because of a comorbid

disease suffered by the patient apart from gynecological bleeding, namely DHF (Dengue Hemorrhagic Fever).

Table 15. Distribution of respiratory frequency interpretations.

Respiratory Frequency	Total	Percentage
Normal (12 – 20)	54	78.3
Tachypnea (> 20)	15	21.7
Total	69	100.0

When measuring the patient's respiratory frequency, the results were normal in 54 patients and tachypnea in 15 patients.

2. Laboratory Examination Results

- Hemoglobin.

Table 16. Distribution of interpretation of hemoglobin values.

Hemoglobin	Total	Percentage
Normal (> 12 g/dL)	30	43.5
Mild Anemia (11.0 – 11.9 g/dL)	12	17.4
Moderate Anemia (8.0 – 10.9 g/dL)	19	27.5
Severe Anemia (< 8 g/dL)	8	11.6
Total	69	100.0

In laboratory examinations of Hb (Hemoglobin) values, researchers used the standard diagnosis of anemia classification issued by WHO. [24] Normal results were obtained in 30 patients, and deficient results were obtained in 30 patients

- Hemoglobin in Adenomyosis Patients

Table 17. Distribution of interpretation of hemoglobin values in cases of adenomyosis.

Hemoglobin	Total	Percentage
Normal (> 12 g/dL)	5	55.6
Mild Anemia (11.0 – 11.9 g/dL)	2	22.2
Moderate Anemia (8.0 – 10.9 g/dL)	2	22.2
Total	9	100.0

Hemoglobin examination in adenomyosis cases showed that most results were normal in 5 cases (55.6%)

Table 18. Distribution of interpretation of hemoglobin values in endometrial cancer cases.

Hemoglobin	Total	Percentage
Normal (> 12 g/dL)	1	100.0

Hemoglobin examination in cases of endometrial cancer showed normal results.

Table 18. Distribution of interpretation of hemoglobin values in cervical cancer cases.

Hemoglobin	Total	Percentage
Mild Anemia (11.0 – 11.9 g/dL)	2	40.0
Moderate Anemia (8.0 – 10.9 g/dL)	1	20.0
Severe Anemia (< 8 g/dL)	2	40.0
Total	5	100.0

Hemoglobin examination in cases of cervical cancer showed that the most frequent results were mild anemia and severe anemia, with results of 2 cases each (40%).

Table 19. Distribution of interpretation of hemoglobin values in cases of uterine myoma.

Hemoglobin	Total	Percentage
Normal (> 12 g/dL)	18	39.1
Mild Anemia (11.0 – 11.9 g/dL)	8	17.4
Moderate Anemia (8.0 – 10.9 g/dL)	14	30.4
Severe Anemia (< 8 g/dL)	6	13.0
Total	46	100.0

Hemoglobin examination in uterine myoma cases showed that most results were normal in 18 cases (39.1%).

Table 20. Distribution of interpretation of hemoglobin values in polyp cases.

Hemoglobin	Total	Percentage
Normal (> 12 g/dL)	6	75.0
Moderate Anemia (8.0 – 10.9 g/dL)	2	25.0
Total	8	100.0

Hemoglobin examination in adenomyosis cases showed that most results were normal in 6 cases (75%).

Table 21. Distribution of interpretation of hematocrit values.

Hematocrit	Total	Percentage
Anemia (< 36 %)	44	63.8
Normal (> 36 %)	25	36.2
Total	69	100.0

When measuring the patient's Ht (Hematocrit) laboratory results, normal results were obtained in 25 patients and poor results in 44 patients. The normal Ht > 36% value is equivalent to Hb 12 g/dL (Hb 1 g/dL = Ht 3%). [24]

Table 22. Distribution of interpretation of platelet values.

Trombosit	Total	Percentage
Normal (150 – 350 10 ³ /μl)	44	63.8
Thrombocytopenia (< 150 10 ³ /μl)	3	4.3
Thrombocytosis (> 350 10 ³ /μl)	22	31.9
Total	69	100.0

Platelet value measurements were found to be normal in 44 patients. An increase in platelet values can be caused by continuous bleeding, so the body forms more platelets to prevent continued bleeding.

Table 23. Distribution of interpretation of leukocyte values.

Leukosit	Total	Percentage
Normal (4.5 – 11 103/ μ l)	51	73.9
Leukocytopenia (< 4.5 103/ μ l)	3	4.3
Leukocytosis (> 11 103/ μ l)	15	21.7
Total	69	100.0

In the laboratory examination of leukocytes, normal results were obtained in 51 patients, and abnormal results were obtained, in which there had increased or decreased leukocyte values in 18 people.

Table 24. Distribution of interpretation of SGOT values.

SGOT	Total	Percentage
Normal (5 – 40)	64	92.8
Abnormal (> 40)	5	7.2
Total	69	100.0

The SGOT laboratory examination yielded normal results in 64 patients and abnormal results in 5 patients, and the SGPT laboratory examination obtained normal results in 66 patients and abnormal results in 3 patients (as shown in Table 25).

Table 25. Distribution of interpretation of SGPT values.

SGPT	Total	Percentage
Normal (5 - 40)	66	95.7
Abnormal (> 40)	3	4.3
Total	69	100.0

Table 26. Distribution of interpretation of urea values.

Ureum	Total	Percentage
Normal (10 – 40)	66	95.7
Abnormal (> 40)	3	4.3
Total	69	100.0

In the urea laboratory examination results, normal results were obtained in 66 patients, and abnormal results were obtained, where there was an increase in 3 patients. In the creatinine laboratory examination results, normal results were obtained in 57 patients, and abnormal results were obtained, where there was an increase and decrease in 12 patients (as shown in Table 27).

Table 27. Distribution of interpretation of creatinine values.

Kreatinin	Total	Percentage
< 0.7	10	14.5
Normal (0.7 - 1.4)	57	82.6
Abnormal (> 1.4)	2	2.9
Total	69	100.0

Treatment for cases of gynecological bleeding varies based on the type of disorder the patient suffers from. The surgical procedure is

appropriate to the patient's clinical condition and has several considerations, including indications for surgery, plans for the next pregnancy, severity of bleeding, response to medication, and underlying medical conditions.

Table 28. Distribution of treatment for types of disorders.

Types of Disorders	Action	Frequency
Adenomyosis	Total Hysterectomy	9 Cases
Endometrial Cancer	Total Hysterectomy	1 Case
Cervical cancer	Total Hysterectomy	2 Cases
	Radical Hysterectomy	3 Cases
Uterine Myoma	Total Hysterectomy	45 Cases
	Myomectomy	1 Case
Polyps	Extirpation	8 Cases

DISCUSSION

In Table 6, regarding the distribution of age frequencies, it was found that the age at which abnormalities occurred was in the 40 - 44 age group, with an average figure of 45.35 years. Tables 7, 8, 9, 10, and 11 contain the patient age data, classified according to age groups. Of the five types of disorders studied, the disease that is strongly related to age is the incidence rate in cases of uterine myoma; this is because uterine myoma occurs in 20% - 25% of women of reproductive age without unknown factors. Myoma is rarely found before menarche, is strongly influenced by hormones, and only manifests during reproductive age.[30]

Based on Table 13 regarding the distribution of the patient's type of work, the most common type of work is a housewife; certain types of work can indirectly influence an individual on the incidence of a disease, this manifests as causing physical stress and psychological stress so that it affects the physiological function of a person's body.

In Table 16, regarding the frequency distribution of patient blood pressure, anyone can suffer from hypertension without having to have comorbidities such as gynecological bleeding or vice versa. Normal results were obtained in the majority of patients because hypertension is a comorbidity in cases of gynecological bleeding.

In the results of calculating the average Hb value in Table 20, a value of 11.1 (mild anemia) was obtained. The decrease in Hb occurs because anemia is a complication that can occur in gynecological bleeding. 21 In

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table 21, table 22, table 23, table 24, and table 25 are the results of hemoglobin examination calculations based on each type of abnormality. The results of the Hb count from the five types can indicate how severe the degree of bleeding complications that occur in a disease. The calculation of the average hematocrit value in Table 16 obtained a value of 33.3 (anemia). There is a relationship between the Hb and Ht values because hematocrit is the proportion of solid red blood cells contained in a blood cell sample.

Increases and decreases in leukocyte values in Table 28 can occur in acute infection and inflammation situations. In this case, the infection can arise from ongoing bleeding or complications like a urinary tract infection. Urinary tract infections can also arise in cases of cervical cancer where there is a blockage in the ureters, resulting in difficulty urinating; this greatly precipitates the occurrence of infections in the urinary tract.

An increase in the SGOT and SGPT enzymes in Table 29 and Table 30 indicates the presence of damaged cell tissue, especially in the liver, heart, and skeletal tissue. [31] Based on the data obtained, increases in SGOT and SGPT enzymes were found in patients with cervical cancer. It can be caused because, at a certain stage, malignant epithelial cells can invade surrounding organs, then enter the lymph channels or through the blood vessels, causing distant metastases such as the liver.

Based on the data obtained in Table 31 and Table 32, increased urea and creatinine values were found in patients who had cervical cancer. In cervical cancer, the expansion of malignant tissue can cause ureteral obstruction, which can have a direct effect on the kidney organs.

CONCLUSION

The conclusions from this research are as follows: a) The number of cases of gynecological bleeding at UKI General Hospital was 69 cases; b) The most cases of gynecological bleeding disorders occurred with an average age of 45.35; and c) There was a decrease in hemoglobin values, resulting in anemia in 39 cases (56.5%). Thus, it is

necessary to hold a government program with RSU UKI regarding education or action for early detection of patients suffering from gynecological bleeding. Further research is needed to find out the factors and look for the etiology that causes the high incidence of cases of gynecological bleeding, as well as to increase patient knowledge of the type of disorder they are suffering from.

1

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