

A Revision Exclusively on the Diseases of Female Reproductive Organs and Breasts

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ABSTRACT

Based on human survival, females have innumerable impacts on this universe. They give birth for the continuity of generation through pregnancy. If mothers are housewives or service-holders, naturally, they spend most of their time, to nourish and care for children. Twenty-four references have helped to accumulate a clear conception of these female reproductive diseases. The review result suggested that out of 28 diseases, the incident of disease percentages was 28.57, 10.71, 25, 10.71, 25, 10.71, 17.86, and 3.57 in the uterus, cervix, ovary, fallopian tube, vagina, vulva, breast, and bone respectively. Females get affected with lactation-mediated osteoporosis and osteoporosis due to menopause. Amongst the menstrual problems, at the time before menopause or during the time of menopause (pre-, post-, and peri-menopausal symptoms), females received lots of life-threatening issues in their lives.

INTRODUCTION

The branch Gynaecology denotes the study of the diseases of female reproductive organs. Breast is an accessory sexual organ of female. Diseases of female genital organs and breasts are accepted as a female disease. This is very common all over the world. Most females undergo various gynaecological problems and among those menstrual disorders (dysmenorrhea, amenorrhoea, menorrhagia, hypomenorrhoea) are most common. Moreover, pre-menopausal, post-menopausal, and peri-menopausal symptoms are very pathetic and often it goes on for the rest of their lives. That time they undergo heart-related diseases, osteoporosis, and urinary tract infections. Their breasts are very prone to forming cysts, fibroadenoma, fat necrosis, sclerosing adenosis, lump, tenderness, and uneven breast size. Not only in Bangladesh but also United Kingdom females faces uterine fibroids and then endometriosis which happens in 1 out of 10 individuals. Very weak immune response, retrograde menstruation, and surgical scar could be the causes of these

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problems. Females in the country Taiwan is well-known for their sound health population the world. Experts suggest maintaining good health through exercise, sound sleep, check-up, proper diet, and the need to escape monotonous routines. Females are sufferers of premenstrual syndrome, breast and cervical cancer, osteoporosis and arthritis, prenatal health, sexually transmitted diseases, and mental health also. Hit in the gym or invest some hand-held weights could be good for the improvement of females' muscle mass. Pushups and weight lifting could improve human chest muscles [1]. Adolescence is a period of increased risk-taking and therefore susceptible to behavioural problems at the time of puberty as well as reproductive health. The majority of adolescents still do not have access to information and education on their sexuality and reproductive health. World Association of Girl Guides and Girl Scouts and Family Health International began work in developing a methodology to promote the reproductive health of adolescent girls [2]. Acne is a frequent skin problem for adolescents and is an important change during this adolescent period [3]. Adolescents constitute 20% of the total population and represent almost one-fifth of the world's population [4]. In developing countries, reproductive morbidity affects the quality of women's lives [5]. Health facilities at the community level are poorly equipped to deal with reproductive morbidity, they do not have diagnostic facilities, drugs, supply of blood, or surgical equipment to treat the diseases. Service providers are not well acquainted to detect the morbidity or to provide the necessary counseling. Information about reproductive morbidity in developing countries is scanty [6]. A few studies in this area showed a varying prevalence of reproductive morbidity and considered adult women of reproductive age [7, 8]. One study in Bangladesh revealed that a large proportion of adolescent (64.5%) reportedly has been suffering from gynaecological morbidity [9]. A study was completed on the menstrual disorder, acne, hirsutism, per-vaginal discharge, anaemia, breast disease, abdominal lump, urogenital malformation, etc. [6]. In addition, to the general examination height, weight, and secondary sexual characteristics were recorded [6]. Out of 668 adolescents, per-vaginal discharge and vulval itching were 10.48%, hirsutism 9.28%, acne 6.73%, lower abdominal pain 4.04%, dysuria 3.14%, feeling a lump in lower abdomen 1.95%, mastalgia 1.05%, feeling a lump in breast 0.45%, and discharge from breast 0.29% respectively [6]. In addition, menorrhagia 12.67%, oligomenorrhoea 26.07%, dysmenorrhoea 9.09%, polycystic ovarian disease (PCOD) 44.29%, moderate anaemia 2.07%, thyroid disorder 4.49%, and psychological stress were noticed 1.73% [6]. Fistula could be happened due to prolonged obstructed labour; the baby's head tears through the orifice between the vagina and rectum. There are more than two million females who suffer from vesico-vaginal fistula in Sub-Saharan Africa. A large number of patients are also to be found in poor areas of Asia and South America where health facilities are not adequate [10]. Urinary incontinence could have happened for infections, constipation, and lack of adequate physical movements. An overactive bladder could occur for neurological diseases, bladder outlet obstruction, pelvic organ prolapses, and psychosomatic disease. Physiotherapy involving pelvic floor exercises, bowel movement training, and good posture could help in pelvic organ prolapse [11]. The objective of this review is to focus on the total ailments of female reproductive organs.

PERIODIC PROBLEMS

North American Menopause Society estimated the mean age of menopause range from 40-65 years. The estimated mean age of menopause is 46 years in India according to the Indian Menopause Society (IMS) [12]. Women in India, on average, could spend approximately 30 years in the post-menopausal stage of life [13]. As the post-menopausal years are associated with health risks such as hypertension, heart disease, osteoporosis, and a decline in the overall quality of life [14, 15]. After the removal of the ovary or uterus, artificial or surgical menopause could be seen in females. Premature menopause exhibits before age 35, and when fertility and sexual activity are in decline climacteric menopause could be found. Menopause affects skin like dryness, wrinkle, thinness, acne, bump, brown spots, rosacea, eczema, psoriasis, and slack in some women (melasma). 25% of females exhibit menopause by age 47, 50% by age 50, 75% by 52, and 95% by age 55 [16]. Due to menopause females suffer vasomotor instability, nervousness, hot flash, chill, apathy (lack of interest), depression, insomnia, palpitation, numbness, urinary disturbances, gastrointestinal problems, osteoporosis, and atherosclerosis. The ultimate pre- and perimenopausal (menopausal transition) situation create cycles that shorten/lengthen, hot flash, sleep disorder, vaginal dryness, mood change, decreasing fertility, changes in sexual function, and changing cholesterol levels. Starting at menopause increase the consumption of calcium to 1500 mg a day, and at least 400 IU (international unit) of vitamin D from dairy products, vitamin supplements, and sun exposure. Hot flashes can often be controlled by stopping caffeine and spicy food. One cup of milk contains about 300 mg of calcium and 100 IU of vitamin D [17]. Menopause sets the aging stage and accelerates the process of non-communicable disorders. During the transition to menopause, women may experience vasomotor, urogenital, psychosomatic, psychological as well as sexual dysfunction [18]. Symptoms are influenced by many factors (health status, host characteristics, race/ethnicity, menopausal transition stage, lifestyle, nutritional, environmental, and genetic) and may vary tremendously in different populations [18]. The treatment gap is huge in low- and middle-income group countries [18].

UTERINE AND CERVICAL PROBLEMS

Fibroids are benign (non-cancerous) tumours that usually develop in the muscular wall of the uterus. Subserous/serosal fibroid is found on the outside wall of the uterus, intramural fibroid within the lining of the uterus causes heavy bleeding, and type submucous invades endometrium and results from cramps, heavy periods, infertility, and repeated miscarriage. Stopping the medication may cause the fibroid re-grow to its original size and long-term use causes severe menopausal symptoms and even osteoporosis [11]. Abnormal uterine bleedings is not only restricted to the adult population but it is more common in adolescent girls [19]. Tumour located under the uterus will lead to excessive and prolonged menstruation, when located in front of the bladder frequent urination could be happened, behind the uterus will put pressure on the large intestines causing constipation, and located at the upper cervix does not display symptoms, and identified when it has given significantly larger [20].

OVARIAN AND FALLOPIAN TUBE PROBLEMS

One in 10 women, between 30 and 45 reproductive years of age can be affected by endometriosis. Genetic birth abnormality develops endometrial cells outside the uterus during fetal development. Small ovarian cysts are natural as part of the menstrual cycle and are usually harmless without requiring any treatment. Other types of ovarian cysts are endometriotic cysts (blood cysts), non-cancerous cystadenoma cysts, and dermoid cysts are abnormal cysts that can contain fat and various types of tissues including hair, bone, and cartilage [11]. The ovary turns cancerous after periods have stopped in many women. Symptoms such as heaviness of the lower abdomen, acidity, an urge to pass urine at short intervals, loss of appetite, and difficulties in breathing [21]. Follicular cysts usually form at the time of ovulation and can grow to about 2-3 inches in diameter. A Corpus luteum cyst is found only on one side and produces no symptoms, haemorrhagic cyst causes bleeding, dermoid cysts are abnormal and usually affect younger women and may grow up to 6 inches in diameter. Endometrial cysts also known as endometriomas or chocolate cysts are filled with dark blood. The polycystic-appearing ovary is different from the polycystic ovarian syndrome (PCOS), which includes other symptoms like metabolic and cardiovascular risks linked to insulin resistance. Both benign and malignant tumours of the ovary may also contain cysts. Furthermore, the condition known as PCOS is characterised by the presence of multiple cysts within both ovaries. A study found 16 adolescents out of 87 (18.39%) were diagnosed to be cases of PCOD (polycystic ovarian disease) [22]. A study showed that 25% of Bangladesh women suffer from the ovarian cyst [23].

PROBLEMS OF BREASTS

The most common type of breast cancer is ductal carcinoma, which is around 90% curable to early detection. Associated factors of these problems are hormonal, reproductive, genetic, environmental, dietary, and lifestyle [11].

Table 1. List of gynaecological disorders

| Diseases | Characteristics | Infected parts/organs |
|-----------------------------|---|------------------------------------|
| Periodic problems | Dysmenorrhoea (pain during menstruation); Amenorrhoea (no menstruation); Menorrhagia (prolong menstruation); Hypomenorrhoea (less bleeding during menstruation); Menopause (it has lots of pre-, peri-, and post-menopausal symptoms) | Ovary, Uterus - |
| Gynaecological neoplasia | Growth of cells of uterus; uterine trauma | Uterus |
| Asherman's syndrome | Scar tissue (adhesions) forms inside the uterus and/or the cervix | Uterus and Cervix |
| Cervical motion tenderness | Cervical excitation | Cervix |
| Decidual menstrualis | Diffuse hyperplasia of the decidua of the uterus | Uterus |
| Procidentia | Severe uterine prolapse | Uterus |
| Adenomyosis | When endometrial tissue grows into muscular wall of the uterus | Uterus |
| Uterine fibroid | Benign tumour | Uterus |
| Cysts | Watery sac, after blasting, surrounding areas could be affected | Ovary (PCOD, PCOS), Vagina, Breast |
| Ovarian tumour | Benign or malignant | Ovary |
| Ovarian apoplexy | Sudden rupture in the ovary, at the site of cyst | Ovary |
| Rotitansky nodule | Mass or lump in ovarian teratomatous cyst | Ovary |
| Endometriosis | Endometrial cell other than uterine endometrium (ovary, fallopian tube) | Ovary, Fallopian tube |
| Endosalpingiosis | Fallopian tube-like epithelium found outside fallopian tube | Fallopian tube |
| Salpingitis isthmica nodosa | Diverticulitis of the fallopian tube | Fallopian tube |
| Hematocolpos | Accumulation of blood within the vagina | Vagina |
| Labial fusion | Fused labia minora (a pediatric condition) | Vagina |
| Vaginismus | Involuntary muscle spasm; pain during sexual act | Vagina |
| Tight hymenal ring | Rigid hymen and tight introitus | Vagina (hymen) |
| Vaginitis | Pain in vagina | Vagina |
| Papillary hidradenoma | Mammary-like gland adenoma of the | Vulva |

| | | |
|--|--|--|
| | vulva; benign tumour between anal and genital organ | |
| Vulvodynia | Chronic pain of vulvar area | Vulva |
| Vulvar vestibulitis | Swollen on any portions of vulva | Vulva |
| Cancers | Benign or malignant | Breast, Cervix, Ovary, Uterus, Vagina, Vulva |
| Mastitis | Inflammation of mammary gland (breast) | Breast |
| Sclerosing adenosis | Breast lobules are transformed into scar like fibrous tissue | Breast |
| Lump/Fibroadenoma | Mass of tissue (non-cancerous) | Breast |
| Pregnant and lactation-associated osteoporosis | It happens at the time of pregnancy and after birth | Bone |

Source: [1, 11, 23, 24]

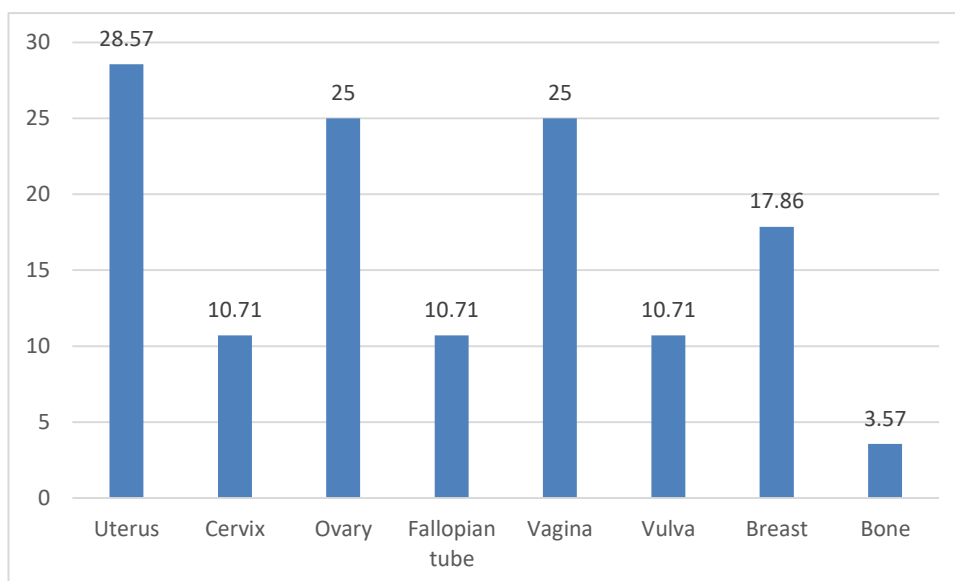


Figure 1. Gynaecological problems with their percentage

CONCLUDING REMARKS

The female reproductive system and its mechanisms are extremely complex. From pregnancy to birth and then care of children is a vastly tough issue for a woman. A mother has extraordinary significance to nourish and be affectionate to their children. Through the monthly periodic problems, females suffer from enormous pangs and sometimes those problems turn into serious ailments. Setup a separate adolescent clinic is desirable for the proper management of adolescent gynaecological problems [6]. Only motivation regarding knowledge of human health, hygiene, healthy food, and exercise could help to minimize such gynaecological problems.

Table 2. Some references on gynaecological problems

| Features | Examples | References |
|--|---|--|
| Motivation and exercise | Motivation and exercise could mitigate the female reproductive diseases | Mediinfo, 2009; WebMD Medical, 2018; Pervin <i>et al.</i> , 2020 |
| Adolescents' or female reproductive health | Adolescents are more sensitive to start reproductive diseases | Wasserheit <i>et al.</i> , 1989; Zurayk <i>et al.</i> , 1993; Bhatia and Cleland, 1995; Rahman <i>et al.</i> , 2004; WHO, 2009, 2011; Prince, 2011; Sultana, 2012; Pervin <i>et al.</i> , 2020 |
| Periodic problems | Periodic problems with menopause create hazardous situation | Nagata <i>et al.</i> , 1998; Aaron <i>et al.</i> , 2002; Taber, 2004; Government of India, 2006; Utian, 2017; Dhiman <i>et al.</i> , 2018; Varghese, 2021 |
| Uterine and cervical problems | Uterus is more vulnerable to lead most of the problems | Sanifileppo and Yussman, 1985; Mediinfo, 2009; Weerakiet, 2017 |
| Ovarian and fallopian tube problems | Ovaries and its accessory organs are very sensitive to infection | Karki and Shrestha (2008); Mediinfo, 2009; Chowdhury, 2009; Tantia, 2018 |
| Problems of breasts | Through the lumps in breasts could be affected by many ailments | Mediinfo, 2009 |

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