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Original Article

Evaluation of common ultrasound findings in female patients who present with pelvic pain at Irrua Specialist Teaching Hospital (ISTH), Irrua, Edo State, Nigeria

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Abstract

BACKGROUND AND AIM: Pelvic pain is the abdominal pain located below the level of the umbilicus including lower back pain with or without radiation into the thighs. It may be acute, intermittent or chronic. This usually affects women more than men possibly because of genetic, hormonal, sociocultural, reproductive organ differences, and anthropological reasons. In women, pelvic pain can be an indication that there may be a problem with one or more of the organs within the pelvic region such as the urogenital and reproductive organs. This study aimed to evaluate the common causes of pelvic pain in females using the ultrasound findings of patients presenting at Irrua Specialist Teaching Hospital, Irrua.

MATERIALS AND METHOD: This study adopted a retrospective non-experimental design to obtain and analyse data from the Radiology Department, Irrua Specialist Teaching Hospital, Irrua over eighteen months. 1599 cases were obtained using a convenience sampling method. The resulting data was analysed using SPSS software version 28.01.1.

RESULTS AND CONCLUSION: Findings from this study showed that females aged 15-49 accounted for 52.60% of the cases whose ages were specified. The transabdominal scan was the dominant ultrasonographic technique used for pelvic evaluation. Uterine fibroid, pelvic inflammatory disease and ovarian cyst were responsible for the majority of the pelvic pain in the cases where pathology was identified, while ovarian adenocarcinoma, hepatitis, and leiomyosarcoma were least implicated in pelvic pain aetiology.

Keywords:
Female, Pain, Pelvic, Ultrasound

INTRODUCTION

The pelvis is a basin-shaped structure that supports the spinal column and protects the abdominopelvic organs. It is a complex anatomical structure, whose functions contribute to human locomotion and reproduction (DeLancey, 2008; Desilva & Rosenberg, 2017). The female pelvis differs from that of the male in some respects, as the female sacrum is wider, shorter, and less curved, with a sacral promontory that projects less into the pelvic cavity, thus giving the female pelvic inlet (pelvic brim) a more rounded or oval shape compared to males. The lesser pelvic cavity of females is also wider and shallower when compared to the narrower, deeper, and tapering lesser pelvis of the males (DeLancey, 2008; DeLancey, 2016; Macho *et al.*, 2020). The female pelvis is divided anatomically into two bony parts: The false pelvis and the true pelvis. The false pelvis lies above the pelvic brim and has no obstetric importance while the true pelvis, which is more important in childbirth, lies below the pelvic brim. The female pelvic cavity contains several organs and structures of urogenital importance including the uterus, ovaries, cervix, vagina, urinary bladder, and fallopian tube (Roach and Andreotti, 2017).

Pelvic pain refers to pain in the pelvic region that may either be acute or chronic depending on the duration (Lekpa *et al.*, 2021; Bonnema *et al.*, 2018). Pelvic pain can be present in men and women usually because of infection or may arise from pain in the pelvic bone or the reproductive and non- reproductive internal organs, such as the uterus, fallopian tube, ovaries, bladder, or colon. However, pelvic pain affects women more frequently

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than men because of genetic, hormonal, sociocultural, environmental, and anthropological reasons (Triolo *et al.*, 2013). In women, pelvic pain may be an indication of a problem with one or more of the urogenital organs in the pelvic region, and it can be a symptom of women of all ages, contributing to maternal morbidity and mortality (Roach & Andreotti, 2017). Chronic pelvic pain (CPP) in women can result in a significant decline in function and quality of life (Bonnema *et al.*, 2018). CPP poses a massive financial healthcare burden (Al-Shaiji *et al.*, 2021), has a debilitating effect on daily living and quality of life in 50%–60% of women and it is linked to conditions such as depression and anxiety (Gutke *et al.*, 2021). On the other hand, women with acute pelvic pain (APP) often present with life-threatening conditions such as ectopic pregnancy, ruptured appendicitis, ruptured ovarian cyst and other clinical conditions such as pelvic inflammatory disease and ovarian torsion, that could compromise fertility (Latthe *et al.*, 2006). APP in women can pose a challenging clinical scenario in which history and physical examination findings are often nonspecific, and the clinical presentation of each condition can vary widely (Kruszka and Kruszka, 2010). Similarly, the diagnosis of CPP poses a clinical challenge because of an extensive list of non-specific symptoms, and a list of possible diagnoses. For this reason, a careful history focusing on pain characteristics, review of systems, gynaecologic, sexual, and social history in addition to focused examination with the use of non-invasive techniques such as computed tomography or transvaginal or transabdominal ultrasonography are needed to help narrow down on the diagnosis of pelvic pain (Zafar & Kupesic Plavsic, 2012; Mischkowski *et al.*, 2018; Nikolic *et al.*, 2021; Ujaddughe *et al.,* 2024).

Ultrasound (whether transabdominal or transvaginal) has become a valuable primary imaging tool in the assessment of APP in women, both for diagnosis and for assessment of complications (Zafar & Kupesic, 2012). It relatively lacks ionizing radiation hence no side effects of radiation, it is readily available and accessible, cheap and gives a high resolution for structures in the pelvic region (Bonnema *et al.*, 2018; Nikolic *et al.*, 2021).

Whereas the knowledge of the prevalence of common causes of pelvic pain will help the attending physician to prioritize care, study on such information, is lacking in our environment. This study thus aims to assess the prevalence of the common causes of pelvic pain in female patients who presented at ISTH, Irrua, Nigeria and had a pelvic USS done.

Materials and Methods

Study design

This was a retrospective study in which the researchers accessed and studied pelvic ultrasound (US) scan reports housed in the Radiology Department of ISTH. These reports were obtained using the US scan machine, General Electric, Voluson E8 model from females who presented with pelvic pain at ISTH, Irrua between January 1, 2021, to June 30, 2022.

Study area

ISTH is a federal government of Nigeria-owned tertiary hospital located in Edo Central Senatorial district of Edo state. It provides tertiary healthcare services for persons who reside in Edo and neighbouring states. It also serves as the training institution for the Medical and Nursing students of the Ambrose Alli University, College of Medicine, Ekpoma, Nigeria (Eseine-Aloja *et al.*, 2024).

Data collection and analysis

Information on the age of patients, type of pelvic pain, USS technique used, pathological condition responsible for pelvic pain and acumen of the diagnosing physician were extracted from patients scan reports into a data collection sheet and analysed using the IBM SPSS Statistics version 28.0.1.1.

Inclusion and Exclusion criteria

All females presenting with pelvic pain and were diagnosed using USS at ISTH, Irrua between January 1, 2021, and June 30, 2022, aged 15 years and above were included in this study. Patients who had previous abdominal surgery to remove one or more of the pelvic organs were excluded from the study. A total of 1,599 female patients were recruited for this study.

Ethical Considerations

Ethical approval for this research was obtained from the Research Ethical Committee of ISTH, Irrua, Edo State, Nigeria with approval number ISTH/HREC/20220509/328.

RESULTS

Findings of this study on the age group classification of female patients presenting with pelvic pain as shown in Table 1 revealed that females presenting to ISTH with pelvic pain during the period under review were aged 15 years and above with the age of 523 patients (32.70%) unspecified but only designated as “Adults”. Notably, of the 1,076 patients whose ages were specified, those aged between 35 and 39 years (164 patients; 10.3%) accounted for the majority. With regards to the prevalent type of pelvic pain, the attending physician did not communicate to the radiologist, the nature of the pain in 1520 patients (95.1%) of the population. However, of the 79 (4.9%) patients whose character of pain was specified, 2.9% (47 patients) and 2.0% (32 patients) of the population presented with acute and chronic pelvic pain respectively, see Table 2. In the case of the ultrasonography technique used for pelvic examination and diagnosis of patients, findings from this study as shown in Table 3 reveals that transabdominal scan was the predominant technique used for pelvic examination, as it was used for 1535 (95.9%) of the patients, while the transvaginal scan was used for 53 patients (3.3%). Meanwhile, the ultrasonography technique used for pelvic examination was unspecified for 12 (0.8%) of the patients. Findings on the pathological causes of pelvic pain following

ultrasonographic examination (Table 4) revealed that 72 patients (4.50%) were pregnant, 489 patients (30.58%) had no abnormality/explainable cause, 124 patients (7.75%) had multiple diagnoses while 914 patients (57.17%) were diagnosed with 1 of the 97 pathological conditions listed in Table 4. Of the 97 pathological conditions identified to be causing pelvic pain in this study, uterine fibroid, pelvic inflammatory disease and ovarian cyst were the top three ranking pathologies occurring in 294 (18.39%), 67 (4.19%) and 57 (3.56%) patients respectively. In this study, the acumen of the diagnosing physician was also evaluated. Findings as shown in Table 5 revealed that of the 1599 patients sampled in this study, the differential diagnosis made by the physician before the patient was sent for ultrasonographic evaluation of the pelvis was inaccurate for 1132 patients (70.79%) and accurate for 418 patients (26.14%). For 27 patients (1.69%), one of the several differential diagnoses made by the physician was found to be accurate while for 22 patients (1.38%), the differential diagnosis made by the physician was correct but associated with other comorbidities.

Table 1: Age group classification of female patients who presented with pelvic pain

Age (Yrs)	Frequency	Percentage (%)	Cumulative Percentage
15 – 19	88	5.5	5.5
20 – 24	110	6.9	12.4
25 – 29	154	9.6	22.0
30 – 34	151	9.4	31.5
35 – 39	164	10.3	41.7
40 – 44	114	7.1	48.9
45 – 49	61	3.8	52.7
50 – 54	63	3.9	56.6
55 – 59	38	2.4	59.0
60 – 64	45	2.8	61.8
65 – 69	25	1.6	63.4
70 – 74	21	1.3	64.7
75 – 79	16	1.0	65.7
80 – 84	17	1.1	66.8
85 – 89	4	0.3	67.0
90 and above	4	0.3	67.3
Adult	523	32.7	100.0
TOTAL	**1599**	**100.0**	

Source: Field Study Data

Table 2: Pain type classification according to duration.

Type of Pelvic Pain	Frequency	Percentage	Cumulative Percentage
Acute pelvic pain	47	2.9	2.9
Chronic pelvic pain	32	2.0	4.9
Unspecified	1520	95.1	100.0
TOTAL	**1599**	**100.0**	

Source: Field Study Data

Table 3: Ultrasonographic techniques used for pelvic examination in females.

Ultrasonographic Technique	Frequency	Percentage	Cumulative Percentage
Transabdominal Scan	1535	95.9	95.9
Transvaginal Scan	53	3.3	99.2
Unspecified	12	0.8	100.0
TOTAL	**1599**	**100.0**	

Source: Field Study Data

Table 4: Pathological conditions responsible for pelvic pain in females

Pathological Condition	Frequency	Percentage (%)
Armillifer armillatus	1	0.06
Adrexal cyst	22	1.38
Hepatocellular carcinoma	3	0.19
Adenomyosis	5	0.31
Adrexal lesion	1	0.06
Appendicitis	21	1.31
Ascites	5	0.31
Hepatic parenchymal disease	1	0.06
Bowel obstruction	12	0.75
Blighted ovum	3	0.19
Bladder calculus	1	0.06
Bladder wall lesion	1	0.06
Cervical cancer	5	0.31
Cyst adenoma (unspecified origin)	1	0.06
Cholelithiasis	15	0.94
Chlongiocarcinoma	1	0.06
Chronic kidney disease	2	0.13
Chronic liver disease	9	0.56
Cervical mass	4	0.25
Colitis	1	0.06
Constipation	11	0.69
Cystic lesion	13	0.81
Cystitis	13	0.81
Decompensated Liver Disease	1	0.06
Duodenal mass	1	0.06
Endometriotic cyst	4	0.25
Endometrial hyperplasia	3	0.19
Ectopic kidney	1	0.06
Endometriosis	11	0.69
Enlarged kidney	1	0.06
Endometrial mass	2	0.13
Ectopic pregnancy	6	0.38
Fluid collection in pelvic cavity	12	0.75
Fatty liver disease	45	2.81
Gall bladder wall calcification	1	0.06
Gall bladder cancer	1	0.06
Gall stone	1	0.06
Hepatic abscess	3	0.19
Hepatic cyst	1	0.06
Hydronephrosis	11	0.69
Hematoma	1	0.06
Haemoperitoneum	3	0.19
Hernia	12	0.75
Hepatomegaly	43	2.69
Hepatosplenomegaly	4	0.25

Pathological Condition	Frequency	Percentage (%)
Hematometra	1	0.06
Incomplete abortion	24	1.50
Intraabdominal abscess	1	0.06
Intramural calatoid majora	1	0.06
Illiac fossa mass	2	0.13
Leiomyosarcoma	1	0.06
Lymphoproliferative disease	2	0.13
Hepatits	1	0.06
Lymphoma	1	0.06
Missed abortion	1	0.06
Nabothian cyst	1	0.06
Nephrolithiasis	6	0.38
Obstructive neuropathy	1	0.06
Ovarian adenocarcinoma	1	0.06
Ovarian cyst	57	3.56
Ovarian endometrioma	2	0.13
Ovarian mass	3	0.19
Obstructive uropathy	1	0.06
Pancreatitis	2	0.13
Pelvic collection abscess	3	0.19
Polycystic ovarian syndrome	27	1.69
Pleural effusion	7	0.44
Peritonitis	1	0.06
Pelvic inflammatory disease	67	4.19
Paralytic ileus	1	0.06
Pelvic kidney	2	0.13
Placenta previa	1	0.06
Peptic ulcer disease	2	0.13
Pyelonephritis	5	0.31
Pyometra	1	0.06
Renal critical cyst	2	0.13
Renal calculus	2	0.13
Rectal mass	1	0.06
Renal obstruction	1	0.06
Renal parenchyma disease	39	2.44
Subphreme abscess	2	0.13
Splenic injury	2	0.13
Sepsis	5	0.31
Uterine septate	1	0.06
Splenomegaly	9	0.56
Threatened miscarriage	4	0.25
Tubo-ovarian abscess	2	0.13
Uterine fibroid	294	18.39
Uterine hypoplasia	1	0.06
Uterine mass	1	0.06
Uterine synaecharie	1	0.06
Urinary tract infection	1	0.06
Multiple diagnosis	124	7.75
Cyesis	72	4.50
Normal findings	489	30.58
	1599	

Source: Field Study Data

Table 5: Diagnostic skills of the attending physicians

Acumen Of Diagnosing Physicians	Frequency	Percentage (%)	Cumulative Percentage (%)
Accurate differential diagnosis	418	26.14	26.14
Inaccurate differential diagnosis	1132	70.79	96.93
One of the multiple differential diagnoses made is correct	27	1.69	98.62
Differential diagnosis made is one of several pathological conditions causing pelvic pain	22	1.38	100.00
	1599	**100.00**	

Source: Field Study Data

DISCUSSION

Pelvic pain refers to pain in the lowest part of the abdomen and pelvis, it can occur in females due to several pathological conditions affecting the reproductive system and its associated internal organs, such as the uterus, fallopian tube, ovaries, bladder, or colon, etc (Hamper & Scoutt, 2010; Lekpa *et al.,* 2021). It is a well-known common symptom of women of all ages and is often associated with morbidity and mortality. Pelvic pain may be either acute or chronic and may be due to a wide spectrum of causes (Lekpa *et al.,* 2021). Pelvic pain has been reported to be significantly associated with females of reproductive age as they are more likely to have pelvic pain compared to older women (Ayorinde *et al.*, 2017). Over the years, the reported mean age of presenting female patients has remained well within the female reproductive age of 15 to 49 years (Kurt *et al.*, 2013; Waseem *et al.*, 2020), which is in keeping with the findings of this study which found that of the 1076 patients (amounting to 67.30% of the study population) whose age were specified, the females within the reproductive age of 15 to 49 years accounted for 52.60% of the population while females outside the reproductive age i.e., 50 years and above accounted for 14.70%. It was equally observed upon age-group classification of the patients, pelvic pain was most prevalent among females between 35 to 39 years. A possible reason for the prevalence of pelvic pain among women of reproductive age is the fact that most pathological conditions responsible for pelvic pain such as adenomyosis, adnexal cyst, dermoid cyst, pelvic inflammatory disease, etc. often affect women of reproductive age (Lekpa *et al.,* 2021). Postmenopausal women risk for pelvic pain are usually associated with pregnancy-unrelated conditions, the conditions which women of reproductive age also share. Another notable finding of this study is that the exact age of 523 (32.70%) female patients who presented with pelvic pains at ISTH, Irrua within the period under review was not recorded but were simply categorised as adults. This is dissatisfactory and can hamper the process of pelvic pain diagnosis and prompt treatment and/or management since the

age of the female patient is a logical factor for the differential diagnosis of pelvic pain (Kruszka & Kruszka, 2010), hence a major limitation to this study. This makes the applicability of the finding of this study to be done with caution.

Diagnosis of the type of pelvic pain is made by the consulting physician considering the duration of which the pain has been experienced by the patient and a number of other precipitating factors (Lena *et al.*, 2017). The prevalent type of pelvic pain found in females as seen in Table 2 was not recorded for 1520 patients (95.1%), hence, it is difficult to make an objective conclusion on the prevalent type of pelvic pain as either acute or chronic. A major importance of accurate diagnosis and documentation of the type of pelvic pain is its ability to improve possibilities of an accurate differential diagnosis of the pathological condition causing pelvic pain by the physician before imaging and laboratory findings are used to conclude on differential diagnosis. Moreso, in certain circumstances, interventions are warranted before the patient can have the services of a sonologist, hence a poor judgement of the first attending physician can adversely affect treatment outcomes (Mundinger *et al.,* 2000). However, for the rest of the 79 females (4.9%), 47 (2.9%) presented with acute pelvic pain (APP) while 32 (2.0%) presented with chronic pelvic pain (CPP). Although a conclusion cannot be made in this study as to which type of pelvic pain is predominant in the population under review, past studies have shown that CPP in the general population appears to be higher than APP in women with 12 to 75 years (Zondervan and Barlow, 2000; Latthe *et al.*, 2006; Silva *et al.*, 2011; Coelho *et al.*, 2014; Loving *et al.*, 2014). For instance, chronic pelvic pain is commonly associated with dysmenorrhea or menstrual cramps, adenomyosis, endometriosis, ovulation etc., while acute pelvic pain can indicate problems with bowel or bladder. Other causes are pelvic inflammatory disease, vaginal infections, vaginitis, and sexually transmitted diseases (Triolo *et al.*, 2013).

Pelvic examination using ultrasonographic technique has been demonstrated as a very important part of the diagnosis of pelvic pain and it is required to be carried out in any woman with pelvic pain (Kruszka & Kruszka, 2010). Furthermore, the ultrasonographic technique used for pelvic evaluation in females is important and findings in this study shows that transabdominal scan (TAS) was the prevalent type of ultrasonographic technique (95.9%) while transvaginal scan (TVS) was seldom used (3.3%), although in a small segment of the patients, the technique used was not recorded. In spite of the numerous benefits of TVS identified in previous studies such excellent visualisation and depiction of structures such as uterus and ovaries at a depth of 1 to 8 cm by a 5-7MHz transducer without the need for a full urinary bladder (Moorthy, 2000), timely and accurate evaluation of ectopic pregnancy (Kruszka & Kruszka, 2010), investigation of pelvic pathologies, size and internal texture of pelvic masses, myometrial and endometrial status, polycystic ovaries, endometriosis and staging of gynaecological malignancies (Zaki-Metias *et al.*, 2024) as well as superior pelvic examination in obese patients and in patients with retroverted uterus (Zaki-Metias *et al.*, 2024) it was observed in this study that majority of the pelvic examinations (95.9%) are still done using TAS in Irrua Specialist Teaching Hospital, Irrua. This is possibly because of the social limitations surrounding TVS as it relates to the Nigerian society where there are several cultural and religious beliefs about visualising a female's naked body. The intensity of the limitation in question depends on the social factors, religion, cultural practices, sexual activity and marital status of the patient orientation (Manal *et al.*, 2015). For example, certain married or elderly females may refuse TVS by a male attending sonologist. Commonly, TVS are typically contraindicated in females who are not sexually active. Another possible reason for the prevalent use of TAS as observed in this study is the advantage of obtaining a wide and general view of the pelvis anatomy that TAS offers since it offers a wider field of view for a general screening of the pelvic anatomy (Eyvazzadeh & Levine, 2010) that overcomes the shortcoming of TVS which is capable of providing great detail but in a small area. Although the choice of which ultrasonographic technique to use is made by the physician depending on the primary information being sought, it is generally recommended that a complete pelvic examination should consist of a TAS followed by a TVS (Zaki-Metias *et al.*, 2024).

Pelvic pain in females has been proven to originate in reproductive organs such as the cervix, uterus, uterine, ovaries and adnexa or other non-reproductive organs. It may also be cyclic (i.e., recurring during the same phase of the menstrual cycle) or non-cyclic (Vercellini *et al.*, 2009; Juganavar & Joshi, 2022). Findings of this study as regards the pathological conditions causing pelvic pain, showed that 30.58% of the subjects whose ages were specified, had no abnormalities, while 72 (4.50%) of them were found to be pregnant. This number of women who have reported with pelvic pain and are found to be pregnant is possibly because some women develop pelvic pain in pregnancy called pregnancy-related pelvic girdle pain (PGP) or symphysis pubis dysfunction (SPD) (Mogren & Pohjanen, 2005). Uterine fibroid, pelvic inflammatory disease (PID) and ovarian cyst were the most prevalent pathological conditions responsible for pelvic pain, this is in keeping with the findings of Lekpa *et al.,* (2021) who found that PID and ovarian cyst accounted for majority of pathological conditions responsible for pelvic pain as well as Kruszka & Kruszka, (2010) who reported PID as the commonest cause of pelvic pain. The findings from this study are in line with those from previous studies where gynaecological conditions that commonly cause pelvic pain have been identified to include PID (Curry *et al.*, 2019), pelvic organ prolapse (Iglesia, & Smithling, 2017), endometriosis (Triolo *et al*., 2013), dysmenorrhea (menstrual cramps), ovulation, ectopic pregnancy, miscarriage, ovarian cysts or other ovarian disorders, cancer (cervix, uterus, or ovaries), uterine fibroids, (Giuliani *et al*., 2020). Non-gynaecologic disorders that can cause pelvic pain as identified in previous studies include

gastrointestinal disorders such as tumours, perirectal abscess, urinary system disorders such as cystitis, interstitial cystitis, calculi, and musculoskeletal disorders such as diastasis of the pubic symphysis due to previous vaginal deliveries, abdominal muscle strains, pelvis disorders (such as tightness and spasm of pelvic muscles) and broken pelvic bones (Vural, 2018). Overall, findings from this study agrees with that of Lekpa *et al.*, (2021) who concluded that the pelvic pain complications experienced among females are commonly caused by Ovarian cyst, Pelvic Inflammatory Disease (PID), Leiomyoma, Hydrosalpinx, Endometritis, Endometrioma, Endometriosis, Retained Product of Conception (RPOC), Uterine Adhesion, among others.

The ability of the physicians to make good clinical judgements was found to be unreliable in most of the cases as ultrasonographic evaluation of the pelvis later revealed a completely different diagnosis. This low acumen in the differential diagnosis of pelvic pain by physicians, as recorded in this study could possibly be as a result of the fact that diagnosis of pelvic pain can be challenging since many of its symptoms are insensitive and the clinical presentation of each condition can vary widely among patients and share similarities with other pelvic pathologies (Kruszka & Kruszka, 2010). The fact that differential diagnoses of chronic pelvic pain encompass multiple specialties, including gastrointestinal, gynaecology, urology, and psychiatry further adds to the diagnostic dilemma (Jarrell *et al.*, 2018). Diagnosis of acute pelvic pain in women also poses a challenging clinical scenario because the history and physical examination findings are often non-specific (Nikolic *et al.,* 2021). The nature of the differential diagnosis of pelvic pain as influenced by the age and pregnancy status of the patient, as a result of the obvious difference in their potential pathological conditions is another fine line that once crossed can lead to a wrong differential diagnosis (Kruszka & Kruszka, 2010). However, through accurate diagnosis, healthcare professionals can unlock the mysteries behind a patient's symptoms, enabling tailored interventions and empowering patients to actively engage in their own healthcare journey (Balogh et al., 2015; Jain, 2023), hence physicians must continue to work at it to foster effective healthcare delivery.

The large number of subjects (about a third of them) whose specific age were not documented by the attending physician serves as a major limitation in this study, thus making the application of the study finding to be done with some caution.

Conclusion: Findings of this retrospective non-experimental study showed TAS as the prevalent ultrasonographic technique used for female pelvic examination. Uterine fibroid, pelvic inflammatory disease (PID) and ovarian cyst were the three most implicated pathological conditions responsible for pelvic pain among females, while the acumen of the diagnosing physicians was observed to be poor (26.14%). Some data were incomplete, making it impossible to clearly determine if the prevalent type of pelvic pain was acute or chronic in nature as well as inability to generalize the age-dependent prevalence of the pathologic conditions.

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