

## CORRESPONDENCE

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Received: July 21, 2021

Accepted: Nov 1, 2021

## Citation:

Yadav A, Tamrakar SR.  
Diagnostic laparoscopy  
findings in pelvic pain  
among the women  
attending Gynecology  
OPD at Dhulikhel Hospital.  
*Nep J Obstet Gynecol.*  
2021;16(33):79-84. DOI:  
<https://doi.org/10.3126/njo.g.v16i2.42110>

## Diagnostic laparoscopy findings in pelvic pain among the women attending Gynecology OPD at Dhulikhel Hospital

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## ABSTRACT

**Aims:** To evaluate the laparoscopic findings in women with pelvic pain.

**Methods:** A prospective study conducted in Department of Obstetrics and Gynecology at Dhulikhel Hospital from March 2017 to December 2018. All women with pelvic pain, ultrasound evaluation and laparoscopic procedure at the hospital were taken. Data entered in SPSS 23 and analyzed using descriptive parameters.

**Results:** Maximum number of cases of pelvic pain belonged to 21-30 years, most of them were parous with mean duration of pain of 16.48±4 months. The mean age and parity of the patients was 34±5 years and 1.74 respectively. The most common complaint was dysmenorrhea (33.3%) followed by abnormal vaginal discharge (31.7%). On clinical examination, pelvic tenderness was observed in majority (21.7%) of cases.

On laparoscopic examination, normal finding were seen in 41.7% cases followed by pelvic inflammatory disease (19.2%), endometriosis (17.5%), pelvic adhesion (12.5%), retroverted uterus (2.5%). PCOS, pelvic congestion and fimbrial cyst were seen in 1.7% each. Pyosalpinx and twisted ovary were seen in 0.8% each.

**Conclusions:** Laparoscopy serves as diagnostic as well as a therapeutic modality of management in chronic pelvic pain.

**Keywords:** clinical examination, diagnostic laparoscopy, pelvic pain, ultrasonography

## INTRODUCTION

Pelvic pain is a major cause of morbidity in lady of reproductive years. It has major impact on health-related quality of life and working capability.<sup>1</sup> And pelvic pain is one of the most common presenting complaints of patients that need Gynecology clinic attention and admission.<sup>2</sup> Studies using various definitions estimat-

ed that its prevalence ranges from 2.1% to 24% of the female population worldwide.<sup>3</sup> But available data are limited especially in developing countries. Pelvic pain is a common problem affecting 15% of women of reproductive age in the United Kingdom.<sup>4</sup> The condition affects 10% in the US, 25.4%

in New Zealand and 15.5% in Brazil.<sup>5,6</sup>

The causes of pelvic pain may be somatic or non-somatic (psychogenic). Somatic causes of chronic pelvic pain (CPP) in women are commonly gynecological in origin. And common causes are pelvic adhesions, endometriosis, pelvic congestions, fibroids, adenomyosis, ovarian cysts and pelvic inflammatory disease (PID). Non-gynecological causes include irritable bowel syndrome, interstitial cystitis, diverticulitis and myofascial pain symptoms.<sup>7</sup>

Although the cause may be pelvic or extra pelvic in origin, it may be idiopathic in 40 – 60% of cases. In such cases laparoscopy often helps us to establish the cause.<sup>8,9</sup> Hence laparoscopy is regarded as a gold standard in the evaluation of pelvic pain.<sup>9</sup> Laparoscopy has additional advantages of treating evident cause simultaneously at the same sitting. But significant controversy remains regarding the selection of patients for laparoscopy.<sup>10</sup> Even though there has been a progressive increase in the number of diagnostic laparoscopies over the years. In 1987, 17% of laparoscopies were performed for CPP; this figure is currently increased to 40%.<sup>11</sup>

In the contest of laparoscopy in Nepal there is limited data available. So, this study was aimed to collect the findings with laparoscopy in Nepalese women presented to Dhulikhel Hospital (DH) for treatment of pelvic pain.

## METHODS

This is a hospital based prospective study of diagnostic laparoscopy findings in pelvic pain conducted in Department of Obstetrics and Gynecology at DH from March 2017 to Dec-

mber 2018. Ethical clearance was taken from the hospital research committee. Data were collected from performa, electronic record of Gynaecology ward, Operation Theater and histopathology Department. Inclusion criteria were lady with pelvic pain, had ultrasonographic evaluation and underwent laparoscopic procedure at DH. All data were analyzed by SPSS 23 packages. Frequency and mean were calculated. Chi-square test was used to analyze certain outcomes; p-value less than 0.05 were considered significant.

## RESULTS

A total 120 patients presented with pelvic pain, their mean age was 34±5 years. The age ranges between 18-52 years. About 40% of the patients were of the age group 21-30 years followed by 31-40 years (33.3%) (Figure 1).

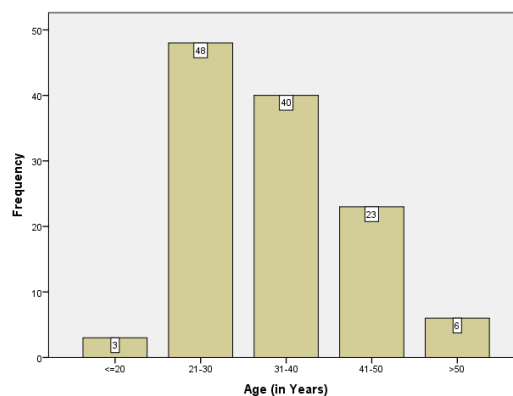


Figure-1: Age distribution (n=120)

Mean body mass index (BMI) of the patient was 24.44 (±3). More than half (53.3%) of the patients were normal BMI where as 37.5% were overweight, 7.5% were obese and 1.7% were underweight. Majority of the patients (86.7%) were housewives follo-

wed by farmers (5.8%), teachers (2.5%) and shopkeepers (1.7%). About 35% of patients were of parity 2 followed by primipara (24.2%), nulliparous (17.5%), parity 3 (15.0%) and parity  $\geq 4$  (8.3%). The mean parity of the patients with pelvic pain was 1.74.

About three fourth of the patients (75.8%) were not using any means of contraception. Among contraceptive user Depo/implant (10%) was the most popular method. In this study, eight patients (6.7%) reported to have primary infertility and six patients (5%) reported to have secondary infertility. Two third of the patients (66.7%) complained of dull aching pain (Figure 2).

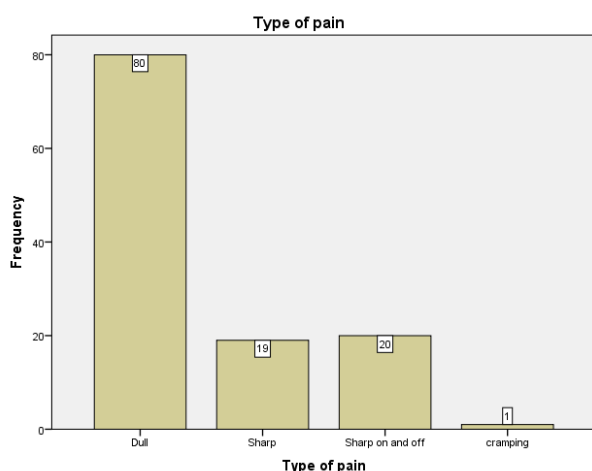


Figure-2: Types of pain

Mean duration of pain of the patients was 16.48 ( $\pm 4$ ) months. About a quarter of the patients (28.3%) had pain for 3-6 months (Figure 3).

About one third of the patients presented with dysmenorrhea and/or abnormal vaginal discharge (Table 1). About 15% of the patients had some sort of abdominal surgery in the past. Little more than a quarter of patients had pelvic tenderness 26 (21.7%). About 102 (85%) had normal sized and non-tender uterus on per vag-



Figure-3: Duration of pain

Table-1: Modes of clinical presentations

	Frequency
Dyspareunia	16 (13.3%)
Dysmenorrhea	40 (33.3%)
Abnormal vaginal discharge	38 (31.7%)
Dysuria	6 (5.0%)
Backache	14 (11.7%)

inal examination. About 41.7% had normal laparoscopic findings while about one fifth of the patients (19.2%) had findings of PID (Figure 4).

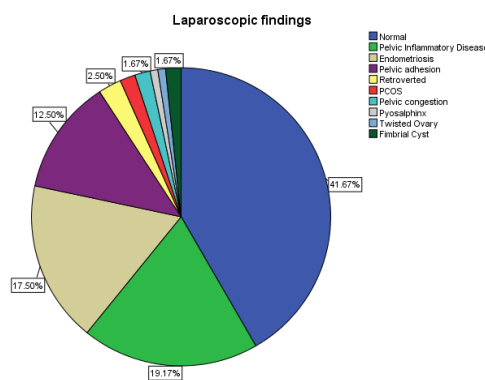


Figure-4: Distribution of different laparoscopic findings

Although ultrasonography (USG) findings were normal in almost all cases of pelvic pain but there were significant pathologies noted in laparoscopy examination (Table 2).

Table-2: Co-relation between clinical, USG and laparoscopy findings

Clinical findings	Frequency (%)	Laparoscopy finding	Frequency (%)
Pelvic tenderness.	16 (13.3%)	PID	5 (4.1%)
		Endometriosis	3 (2.5%)
		Pelvic adhesion	1 (0.8%)
		Normal	7 (5.8%)
Pelvic tenderness + bulky uterus	8 (6.7%)	Endometriosis	1 (0.8%)
		PID	4 (3.3%)
		Fimbrial cyst	1 (0.8%)
		Pelvic adhesion	1 (0.8%)
		Normal	1 (0.8%)
Pelvic tenderness + uterine tenderness	2 (1.7%)	PID	1 (0.8%)
		Pelvic adhesion	1 (0.8%)
Retroverted uterus	1 (0.8%)	Pelvic adhesion	1 (0.8%)

## DISCUSSION

Pelvic pain is a common and significant problem of women. Diagnostic laparoscopy is a useful technique to diagnose or exclude underlying pathology especially when there are no definite anatomical abnormalities visible on imaging modalities in cases of undiagnosed lower abdominal pain.<sup>12,13</sup> Hence, laparoscopy is regarded as the gold standard test to confirm the cause of pelvic pain.<sup>14</sup>

Laparoscopy is an effective procedure that permits direct access to the abdominal and pelvic cavity. It helps in confirmation of the diagnosis of several gynecological pathologies. The effectiveness of laparoscopy as a diagnostic tool in patients with pelvic pain depends on proper selection of patients. Detailed history and thorough physical examination are required to reach a proper clinical diagnosis so that the risk of complications can be minimized. This study aimed to find the various causes of pelvic pain that observed on laparoscopy.

In this study, PID was found in 23 patients (19.17%) while it was found in 18.6% patients in the study of Redecha M et al.<sup>30</sup> and 26.92% cases in the study by Lamba J et al.<sup>19</sup> But in the study by Farook SM et al.<sup>25</sup> the frequency of PID was 6.8% and that by Chhetri S et al. was 12.7%.<sup>7</sup>

Frequency of endometriosis was 17.5% in this study. This result was similar to the study finding of Sharma D et al.<sup>31</sup> in which 18% cases were with endometriosis. Rana T<sup>26</sup> has reported endometriosis in 8.2% and that by Farook SM et al.<sup>25</sup> in 10% of cases. Another study done in Pakistan (2013) showed 12.9% cases with endometriosis.<sup>1</sup> Howard FM.<sup>32</sup> showed endometriosis in 37% cases as the cause of CPP. This difference was probably due to the selection of specific age and parity patients in their study.

Carter JE et al.<sup>33</sup> showed pelvic adhesions was in 8.5% of cases. In this study, incidence of pelvic adhesions was 12.12%. This finding was comparable to study finding by Krolikowski A et al.<sup>34</sup> And Redecha M et al.<sup>30</sup> reported the frequency of endometriosis

was 18.16%. In a study by Hebbar S et al.<sup>17</sup> the most common pelvic pathology by laparoscopy was pelvic adhesions (20.9%) while Sharma D et al.<sup>31</sup> found pelvic adhesions as cause of CPP in as high as in 40% cases.

## CONCLUSIONS

Laparoscopy facilitates direct visualization of pelvic lesions and biopsy can be taken in the same setting. Patients with negative laparoscopy felt relieved when they were reassured. Hence, laparoscopy should be considered as an important investigation tool in the management of chronic pelvic pain.

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