

Evaluation of Various Indications of Total Abdominal Hysterectomy in Holy Family Red Crescent Medical College Hospital for Last 20 Months

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DOI: 10.36348/sijog.2024.v07i06.008

| Received: 11.05.2024 | Accepted: 24.06.2024 | Published: 28.06.2024

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Abstract

Background: Total Abdominal Hysterectomy (TAH) is a common surgical procedure for treating various gynecological conditions. This study aims to evaluate the demographic characteristics, comorbidities, and clinical indications for TAH at Holy Family Red Crescent Medical College Hospital, Dhaka, Bangladesh. **Methods:** This retrospective study included all TAH cases performed from January 2018 to August 2019. Data on patient age, comorbidities (hypertension and diabetes), and indications for TAH were collected from hospital records. Descriptive statistics were used to analyze the data. **Results:** A total of 320 TAH cases were reviewed. The most common age group was 41-50 years (43.13%), followed by patients aged ≤ 40 years (31.56%). Hypertension was present in 36.25% of the patients, and diabetes was observed in 30.94%. The most frequent indication for TAH was fibroid uterus (55.63%), followed by adenomyosis (18.75%) and post-menopausal bleeding (14.38%). Other indications included ovarian cysts (5.63%), endometrial hyperplasia (5.00%), and pelvic mass (6.25%). **Conclusion:** The findings highlight uterine fibroids, adenomyosis, and post-menopausal bleeding as the primary indications for TAH, with a significant prevalence of hypertension and diabetes among the patients. Effective management strategies for these conditions and considerations of comorbidities are crucial in optimizing surgical outcomes. Further research into minimally invasive techniques may enhance patient care in gynecological surgery.

Keywords: Total Abdominal Hysterectomy, Uterine Fibroids, Adenomyosis, Post-Menopausal Bleeding, Hypertension, Diabetes.

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INTRODUCTION

Total Abdominal Hysterectomy (TAH) remains one of the most commonly performed major gynecological procedures worldwide, primarily for both benign and malignant conditions of the uterus. This surgical procedure, which involves the removal of the uterus through an abdominal incision, has been a cornerstone in the management of various gynecological disorders. The historical prevalence of TAH and its various indications reflect its crucial role in gynecological practice. However, with advancements in minimally invasive surgical techniques, the landscape of hysterectomy procedures has been evolving. It is

imperative to evaluate the current indications and outcomes of TAH to understand its ongoing relevance and to optimize patient care. Hysterectomy can be performed using different approaches, including Abdominal Hysterectomy (Total or Subtotal), Laparoscopic Hysterectomy, and Vaginal Hysterectomy. Each method has its indications, benefits, and drawbacks. TAH, which involves the complete removal of the uterus through an abdominal incision, has been the traditional approach for many complex cases, particularly where malignancy is suspected or where large fibroids or extensive adhesions are present [1]. Subtotal Hysterectomy, where the cervix is left intact, is less commonly performed due to concerns about

ongoing cyclical bleeding and the potential for cervical pathology. Laparoscopic Hysterectomy, including Total Laparoscopic Hysterectomy (TLH) and Laparoscopic-Assisted Vaginal Hysterectomy (LAVH), has gained popularity due to its minimally invasive nature, leading to quicker recovery times and reduced postoperative pain [2–4]. Globally, hysterectomy remains one of the most frequently performed surgeries among women. The prevalence of hysterectomy procedures varies across regions, influenced by factors such as healthcare access, cultural attitudes, and the availability of alternative treatments. In the United States, for instance, hysterectomy rates are notably high, with TAH constituting a significant proportion of these surgeries [5]. Similar trends have been observed in other countries, including Nigeria, where TAH is a prevalent procedure for managing various gynecological conditions [6]. The indications for TAH are diverse, encompassing both benign and malignant conditions. Uterine fibroids, also known as leiomyomas, are the most common indication for TAH, accounting for a significant proportion of cases. Studies have consistently shown that fibroids are a leading cause of hysterectomy due to their associated symptoms such as heavy menstrual bleeding, pelvic pain, and pressure symptoms [7]. Endometriosis and adenomyosis are also frequent indications for TAH, particularly in cases where medical management has failed and the patient experiences severe pain and bleeding [8]. Uterine prolapse, which involves the descent of the uterus into the vaginal canal due to weakened pelvic floor muscles, is another common indication, often addressed through TAH when conservative treatments are ineffective [9]. Additionally, malignancies such as cervical and endometrial cancer necessitate TAH as part of the comprehensive surgical treatment plan [10]. Statistical data on the frequency of these conditions highlight the substantial burden they impose on women's health. For instance, in a study conducted in Southwest Nigeria, uterine fibroids were identified as the most common indication for TAH, constituting 81.6% of all cases [6]. Similarly, at the Aminu Kano Teaching Hospital, fibroids accounted for 51.8% of elective abdominal hysterectomies performed over an eight-year period [2]. These findings underscore the high prevalence of fibroids and their significant impact on women's health. The treatment options for the conditions leading to TAH include both non-surgical and surgical approaches. Non-surgical treatments may involve hormonal therapies, such as gonadotropin-releasing hormone agonists, nonsteroidal anti-inflammatory drugs (NSAIDs), and other medications aimed at managing symptoms [11]. However, when medical management fails or is inappropriate, surgical intervention becomes necessary. Apart from TAH, other surgical options include myomectomy, which involves the removal of fibroids while preserving the uterus, and less invasive hysterectomy methods like TLH and LAVH. Studies have shown that TLH and LAVH offer several benefits over TAH, including reduced blood loss, shorter hospital stays, and quicker recovery times,

although they may not be suitable for all patients [12]. In conclusion, while TAH continues to play a vital role in the management of various gynecological conditions, the evolving landscape of minimally invasive surgical techniques and the need for individualized patient care highlight the importance of ongoing research and evaluation of its indications and outcomes. Understanding the current trends and evidence-based practices in hysterectomy procedures is crucial for optimizing patient outcomes and advancing gynecological surgery.

METHODS

This retrospective study included all cases of Total Abdominal Hysterectomy (TAH) performed at Holy Family Red Crescent Medical College Hospital, Dhaka, Bangladesh, over a 20-month period from January 2018 to August 2019. The study focused exclusively on TAH cases, with a total of 320 hospital records reviewed. Records of patients undergoing other types of hysterectomy or surgeries were excluded from the study. Data were collected on patient demographics, including age and existing comorbidities, as well as the indications for TAH. All patients included in the study were married. The indications for TAH encompassed various clinical reasons such as uterine fibroids, endometriosis, adenomyosis, and malignancies, including cervical and endometrial cancer. The collected data were compiled into a structured dataset and analyzed using descriptive statistics. Frequencies and percentages were calculated for categorical variables, while means and standard deviations were computed for continuous variables.

RESULTS

Table 1: Age distribution of the participants (N=320)

Age	Frequency	Percentage
≤40	101	31.56%
41-50	138	43.13%
51-60	51	15.94%
61-70	24	7.50%
71-80	6	1.88%

The majority of the patients, 138 individuals (43.13%), were aged between 41 and 50 years. This was followed by 101 patients (31.56%) who were 40 years old or younger. There were 51 patients (15.94%) in the 51-60 age group, while 24 patients (7.50%) were aged between 61 and 70 years. The smallest group consisted of 6 patients (1.88%) aged between 71 and 80 years.

Table 2: Distribution of hypertension among the participants (N=320)

Hypertension	Frequency	Percentage
Absent	204	63.75%
Present	116	36.25%

Hypertension was present in 116 patients (36.25%). The majority of the participants, 204 patients (63.75%), did not have hypertension.

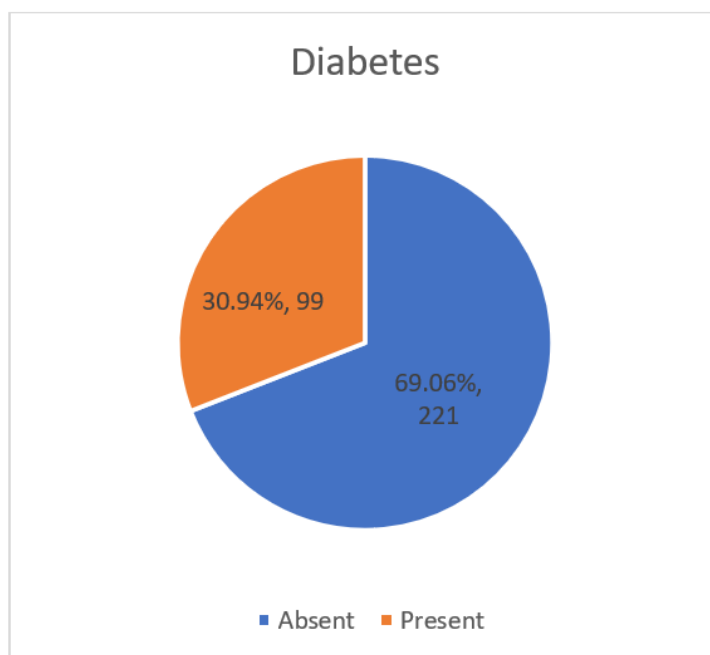


Figure 1: Distribution of diabetes among the participants (N=320)

Among the total participants, 99 patients (30.94%) had diabetes, while the majority of the participants, 221 patients (69.06%), did not have diabetes.

Table 3: Distribution of indications for total abdominal hysterectomy among the participants (N=320)

Indication	Frequency	Percentage
Fibroid uterus	178	55.63%
Adenomyosis	60	18.75%
Post-menopausal bleeding	46	14.38%
Ovarian cyst	18	5.63%
Endometrial hyperplasia	16	5.00%
Pelvic mass	20	6.25%
Dysfunctional uterine bleeding	16	5.00%
Bilateral adnexal cyst	10	3.13%
Cervicitis	9	2.81%
Cervical polyp	9	2.81%
Cervical intraepithelial neoplasia	7	2.19%
Pelvic inflammatory disease	5	1.56%

The most common indication was fibroid uterus, accounting for 178 cases (55.63%). Adenomyosis was the second most common indication, observed in 60 patients (18.75%), followed by post-menopausal bleeding in 46 patients (14.38%). Other notable indications included ovarian cysts in 18 patients (5.63%), endometrial hyperplasia in 16 patients (5.00%), and pelvic mass in 20 patients (6.25%). Dysfunctional uterine bleeding was reported in 16 patients (5.00%), while bilateral adnexal cysts were present in 10 patients (3.13%). Cervicitis and cervical polyp each accounted for 9 cases (2.81%). Cervical intraepithelial neoplasia was noted in 7 patients (2.19%). Less common indications included pelvic inflammatory disease, each observed in 5 patients (1.56%).

DISCUSSION

The findings of this study provide a comprehensive overview of the demographic characteristics, comorbidities, and clinical indications for Total Abdominal Hysterectomy (TAH) at Holy Family Red Crescent Medical College Hospital, Dhaka, Bangladesh, over a 20-month period. The results are consistent with global trends and offer valuable insights into the surgical practices and patient profiles associated with TAH. The age distribution of the participants in this study revealed that the majority of patients undergoing TAH were between 41 and 50 years old (43.13%), followed by those aged 40 years or younger (31.56%). This is in line with the findings of Sobande *et al.*, (2005),

who reported a peak incidence of hysterectomy in women aged 41-50 years, primarily for uterine fibroids and adenomyosis [13]. The distribution in the present study further supports the observation by Adenaya (2020) that uterine fibroids are prevalent among women in this age group, highlighting the significance of reproductive age in the prevalence of fibroid-related hysterectomies [6]. Hypertension was present in 36.25% of the patients, while diabetes was observed in 30.94%. These comorbidities are common among women undergoing TAH and can influence surgical outcomes. The prevalence of hypertension and diabetes in this study aligns with the findings of Anzaku and Musa (2012), who reported similar comorbidity rates among patients undergoing TAH for benign gynecological conditions [1]. The management of these comorbidities is crucial to minimize perioperative risks and improve patient outcomes. Fibroid uterus was the most common indication for TAH, accounting for 55.63% of cases. This is consistent with numerous studies, including those by Dogra and Kumar (2021) and Adenaya (2020), which identified fibroids as the leading cause of hysterectomy [2,6]. Fibroids can cause significant symptoms such as heavy menstrual bleeding, pelvic pain, and pressure symptoms, necessitating surgical intervention when medical management fails. The high prevalence of fibroid-related TAH in this study underscores the need for effective management strategies for uterine fibroids. Adenomyosis was the second most frequent indication, noted in 18.75% of patients. This condition, characterized by the presence of endometrial tissue within the uterine muscle, often results in severe dysmenorrhea and menorrhagia. The prevalence of adenomyosis in this study is comparable to that reported by Sobande *et al.*, (2005), highlighting its role as a significant indication for hysterectomy [13]. Effective diagnostic and treatment strategies for adenomyosis are essential to manage this debilitating condition. Post-menopausal bleeding accounted for 14.38% of TAH cases, reflecting its importance as an indication for hysterectomy in post-menopausal women. This finding is consistent with the study by Hembah-Hilekaan and Kigbu (2010), who emphasized the need for thorough evaluation of post-menopausal bleeding to rule out malignancies [14]. The management of post-menopausal bleeding often involves TAH to address underlying pathologies such as endometrial hyperplasia or cancer. Other indications for TAH in this study included ovarian cysts (5.63%), endometrial hyperplasia (5.00%), and pelvic mass (6.25%). These conditions necessitate surgical intervention when medical treatments are inadequate. The findings are supported by the study of Rodriguez *et al.*, (2020), which highlighted the role of TAH in managing large fibroids and incidental findings such as endometrial polyps with atypia [15]. The presence of endometrial hyperplasia and pelvic masses further underscores the importance of TAH in treating diverse gynecological conditions. Dysfunctional uterine bleeding (DUB) was indicated in 5.00% of cases. While less common, DUB remains a significant indication for

hysterectomy, particularly when conservative treatments fail. This aligns with the findings of Baral *et al.*, (2015), who noted that DUB often leads to hysterectomy when other treatment modalities are unsuccessful [16]. The variability in histopathological findings among DUB patients highlights the complexity of this condition. The study also reported less frequent indications for TAH, such as bilateral adnexal cysts (3.13%), cervicitis and cervical polyp (each 2.81%), cervical intraepithelial neoplasia (2.19%), pelvic inflammatory disease (each 1.56%). These indications, although less common, represent a wide spectrum of gynecological conditions requiring surgical intervention. The presence of cervical intraepithelial neoplasia as an indication for TAH aligns with the findings of Anzaku and Musa (2012), emphasizing the role of hysterectomy in managing pre-malignant cervical lesions [1]. Comparatively, the study by Bijen *et al.*, (2011) on early-stage endometrial cancer highlighted the use of total laparoscopic hysterectomy (TLH) as a less invasive alternative to TAH, with benefits such as reduced blood loss, shorter hospital stay, and faster recovery [17]. Similarly, Dogra and Kumar (2021) reported that TLH offers advantages over TAH in terms of postoperative recovery and morbidity. However, the choice of surgical method depends on various factors, including patient characteristics, surgeon expertise, and the presence of comorbidities. In conclusion, this study provides a detailed analysis of the demographic characteristics, comorbidities, and clinical indications for TAH at Holy Family Red Crescent Medical College Hospital. The findings are consistent with global trends and highlight the importance of TAH in managing a wide range of gynecological conditions. Effective management strategies for common indications such as fibroids, adenomyosis, and post-menopausal bleeding are essential to optimize patient outcomes. Further research and advancements in minimally invasive surgical techniques may continue to influence the practice of hysterectomy, offering better outcomes for patients.

Limitations of The Study

The study was conducted in a single hospital with a small sample size. So, the results may not represent the whole community.

CONCLUSION

This study provides an in-depth analysis of the demographic characteristics, comorbidities, and clinical indications for Total Abdominal Hysterectomy (TAH) at Holy Family Red Crescent Medical College Hospital over a 20-month period. The findings underscore the predominance of uterine fibroids, adenomyosis, and post-menopausal bleeding as the primary indications for TAH, reflecting global trends in gynecological practice. The age distribution indicates a higher prevalence of TAH among women aged 41-50 years, with significant comorbidities such as hypertension and diabetes observed in a substantial portion of the patient population. These results highlight the necessity for

effective management strategies for common gynecological conditions and the importance of considering patient comorbidities in surgical planning. Further research and advancements in minimally invasive surgical techniques are essential to optimize patient outcomes and improve the standard of care in gynecological surgery.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

- Anzaku, A. S., & Musa, J. (2012). Total abdominal hysterectomy for benign gynaecological conditions at a University Teaching Hospital in Nigeria. *Nigerian Journal of Medicine*, 21(3), 326-330.
- Dogra, A., & Kumar, V. (2021). A Comparative Overview of Total Laparoscopic Hysterectomy and Total Abdominal Hysterectomy.
- Gendy, R., Walsh, C. A., Walsh, S. R., & Karantanis, E. (2011). Vaginal hysterectomy versus total laparoscopic hysterectomy for benign disease: a metaanalysis of randomized controlled trials. *American journal of obstetrics and gynecology*, 204(5), 388-e1.
- Hertel, H., Köhler, C., Michels, W., Possover, M., Tozzi, R., & Schneider, A. (2003). Laparoscopic-assisted radical vaginal hysterectomy (LARVH): prospective evaluation of 200 patients with cervical cancer. *Gynecologic oncology*, 90(3), 505-511.
- Mourits, M. J., Bijen, C. B., Arts, H. J., ter Brugge, H. G., van der Sijde, R., Paulsen, L., ... & de Bock, G. H. (2010). Safety of laparoscopy versus laparotomy in early-stage endometrial cancer: a randomised trial. *The lancet oncology*, 11(8), 763-771.
- Adenaya, O. A., Ojo, O. O., & Ade-Onojobi, A. O. (2020). Pattern of gynaecological total abdominal hysterectomy in Abeokuta, Southwest Nigeria; a five-year review. *J Med Sci Clin Res*, 8, 297-304.
- Rabiu, A., & Habib, R. (2017). Elective abdominal hysterectomy: Appraisal of indications and complications at Aminu Kano Teaching Hospital—An 8-year review. *Tropical Journal of Obstetrics and Gynaecology*, 34(3), 224-228.
- Baggish, M. S. (2005). Total and subtotal abdominal hysterectomy. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 19(3), 333-356.
- Manyonda, I. T., & Hadoura, E. (2008). Total abdominal hysterectomy. In *Modern Management of Abnormal Uterine Bleeding* (pp. 281-293). CRC Press.
- Oseki, C., & Osaikhuwuomwan, J. A. (2018). A Review of indications and outcome of total abdominal hysterectomy at a tertiary public health facility in Southern Nigeria. *New Nigerian Journal of Clinical Research*, 7(11), 21.
- Huang, C. C., Lo, T. S., Huang, Y. T., Long, C. Y., Law, K. S., & Wu, M. P. (2020). Surgical trends and time frame comparison of surgical types of hysterectomy: A nationwide, population-based 15-year study. *Journal of Minimally Invasive Gynecology*, 27(1), 65-73.
- Flory, N., Bissonnette, F., & Binik, Y. M. (2005). Psychosocial effects of hysterectomy: literature review. *Journal of psychosomatic research*, 59(3), 117-129.
- Sobande, A. A., Eskander, M., Archibong, E. I., & Damole, I. O. (2005). Elective hysterectomy: A clinicopathological review from Abha catchment area of Saudi Arabia. *West African journal of medicine*, 24(1), 31-35.
- Hembah, Hilekaan, S. & Kigbu, J. (2010). Undiagnosed Cervical Cancer After Total Abdominal Hysterectomy In North Central Nigeria—Case Report. *The Internet Journal of Oncology*;8.
- Rodriguez, M. G. H., Mehra, D., Saroop, S., & Srivastav, A. (2020). Abdominal Supracervical Hysterectomy With Bilateral Salpingo-Oophorectomy as the Surgical Approach for a 22-Week Uterus With Incidental Endometrial Polyp Focal Atypia. *Cureus*, 12(9).
- Baral, R., & Pudasaini, S. (2011). Histopathological pattern of endometrial samples in abnormal uterine bleeding. *Journal of Pathology of Nepal*, 1(1), 13-16.
- Bijen, C. B., de Bock, G. H., Vermeulen, K. M., Arts, H. J., ter Brugge, H. G., van der Sijde, R., ... & Mourits, M. J. (2011). Laparoscopic hysterectomy is preferred over laparotomy in early endometrial cancer patients, however not cost effective in the very obese. *European Journal of Cancer*, 47(14), 2158-2165.