

## Original Article

# A study of Complications and Outcome of Major Gynaecological Operations-Analysis of 100 Cases

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### Abstract

**Objective:** To demonstrate complications and difficulties that had been encountered during major gynaecological surgery. **Materials & Methods:** This retrospective hospital based study was carried out in the department of Obstetrics & Gynecology of Rajshahi Medical College & Hospital, Rajshahi, between 1st January 2002 to 30th June 2002. **Result:** Among 266 operated patients during the above mentioned 6 months period 100 samples were taken randomly. Regarding age distribution of the operated patients, 38% were in the age group of 31 to 40 years, more than ¼ th (33%) were in the age group of 41 to 50 years. Out of 100 patients about half (54%) of them were in the parous group of 1 - 5 children, next to this 28% had more than 5 and above babies. After surgery, 70 patients had no postoperative complications; only in 30 patients minor complications were noted. Among these, pyrexia above 100.0F was noted in 15 patients, lower abdominal pain in 8 patients and urinary tract infection in 5 patients. **Conclusion:** This study revealed a low rate of complications and difficulties encountered during major gynaecological surgery. In most cases due to highly skilled personnel, improvement of surgical technique, safe anaesthesia and appropriate use of antibiotics with blood transfusion, the mortality rate has remarkably decreased to nil.

### Introduction

Rajshahi Medical College and Hospital is a specialized and referral hospital in Bangladesh. In its Gynaecological and obstetrics department various complicated and problematic cases were treated which were referred from different districts and thana level health centre. So it was very essential to review the complications, both major and minor and outcome of the operations. Major gynaecological surgery has become safe now-a-days with a great reduction in mortality and morbidity. A large number of factors have contributed to this improvement such as better methods of diagnosis, availability of a variety of antibiotics with ever broadening spectrum of activity, safe blood transfusion and good anaesthesia, especially spinal anaesthesia.

Great contribution has also been made by improvement in surgical techniques. One good example is the almost universal application of Pfannenstiel incision in

gynaecological surgery, which has greatly reduced the incidence of post-operative complications by allowing early mobilization of the patient.

In addition it gives a much more cosmetically acceptable scar because of its location and relatively less tendency to form Keloids. The post operative mortality is a measure of the quality of care of surgical patients in gynaecology, hysterectomy carried a risk of death of 4.1 to 85.1 per 10,000 operations two decades ago (Ledger and Child 1973; Cava 1975; Gray 1975; Amirkia and Evans 1979). In Finland this figure was not less than 153 in the late 1940s (Vara and Kinuines 1951). With the improvement of perioperative care during recent decades, one would expect a decrease in the mortality rate after hysterectomy<sup>2</sup>. In France, Cosson et al observed that around 1604 patients who had undergone vaginal and abdominal hysterectomy for benign disorders, none died<sup>3</sup>.

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## Material & Methods

This retrospective study was carried out at the department of Obstetrics & Gynecology, Rajshahi Medical College and Hospital, Rajshahi. Six months retrospective cross sectional study were taken for collecting case histories and relevant post-operative data from 1st January 2002 to 30th June 2002. Diagnosis was confirmed by history, clinical features, laboratory investigations, per operative findings and histopathological examination.

## Results

Showed that out of 100 patients maximum respondents 38% were in the age group of 31 to 40 years, 33% were in the age group of 41 to 50 years and 10% were in the age group of 21 to 30 years. From the figure it was clear that 82% of all respondents below 50 years of age. Among 100 patients, 2% patients were unmarried and 6 patients were nulliparous. 54% Patients had 1 to 5 children where as 34% patients (28%+6%) had more than 6 children.

Out of 100 operated patients, 30% develop complication and which were mainly minor. The remaining 70% had not developed any complications. Among the 30%, single complications were in 8% patients and 22% of patient's developed more than one complications.

Among the complications, pyrexia above 100.4<sup>0</sup> F was noted in 15% pt, lower abdominal pain in 8% and epigastric pain in 7%, urinary tract infection only in 5% of patients and respiratory tract infection in 4% patients. No patient developed reactionary hemorrhage, hypovolemic shock, pulmonary embolism or oliguria. Outcome of major gynaecological operations in 80% of patients were smooth and uneventful. Complications developed in 16% patients. In 04% patients, operation could not be done due to advanced malignance, death was found in 00%.

**Table - I** Number of post-operative patient's who developed various complications.

SL	Complications	No. of pt's	Percentage
1.	Single complication	8	8%
2.	More than one complication	22	22%
3.	No complication	70	70%

**Table - II** Various types of post-operative complications that developed in the post-operative patients.

SL	Name of Complications	No. of pt's	Percentage
01.	Pyrexia above 100.4 <sup>0</sup> F	15	15%
02.	Reactioinary hemorrhage	0	0%
03.	Oliguria	0	0%
04.	Hypovolemic shook	0	0%
05.	Abdominal dissension	01	01%
06.	Epigastric pain	07	07%
07.	Lower abdominal pain	08	08%
08.	Secondary hemorrhage	01	01%
09.	Urinary tract infection	05	05%
10.	Abdominal wound infection	05	05%
11.	Pelvic infection	04	04%
12.	Respiratory tract infection	03	03%
13.	Wound dehiscence	0	0%
14.	Pulmonary embolism	04	04%
15.	Loose motion	0	0%

**Table - III** Number of patients who had associated severe illness.

SL	Illness	No. of pt's	Percentage
1.	Present	25	25%
2.	Absent	75	75%

**Table - IV** Out come of major gynaecological operation's in RMCH.

SL	Outcome	No. of pt's	Percentage
1.	Smooth and uneventful	80	80%
2.	Inoperable	04	04%
3.	Complication	16	16%
4.	Death	0	0%

## Discussion

This study has been performed to find out the incidence of complications and outcome of major gynaecological operations in RMCH. The diagnosis is done most often on the basis of patient's symptoms, clinical examinations and investigations, which may or may not have associated abnormalities found on pathological examination later on. In this study, maximum respondent 38% were in the age group of 31 to 40 years, 33% in the age group of 41 - 50 years, 33% in the age group of 41 - 50 years, 10% in the age group 21 - 30, 10% in the age group of 51 - 60 years and 8% in the group of 20 years and below.

In the study of John Hopkins Hospital age distribution of major gynaecological operation were highest 38.1% in the group of 31 - 40 years which corresponds with the present study. Next to frequency of age group in John Hopkins Hospital were 41 - 50 year, which also corresponds with the present study.

Regarding major gynaecological operations in relation to the parity of the patient in present series, maximum respondent 54% were gave birth 1 - 5 children. 28% gave birth 5 - 8 children and 6% 9 and above. So in all studies majority of operations performed in the 1 - 5 parous group. The number of abdominal hysterectomy done for fibroid uterus varies from study of study. In present series it was 34.0% which is more closer to Farhana Dewan's study (34%)<sup>24</sup>, Lee N. C. et al. Study (30.0%) and Bani Roy Chowdhury (32.61). Hysterectomy was done for dysfunctional uterine bleeding in 19% of the patients in present series. The finding is more or less similar to those of Lee c. Nancy et al. (21%)<sup>23</sup>, Farida Begum (20.27%), Dickar R. C et al. (17.8%)<sup>22</sup> and Bani Roy Chowdhury (21.74%).

Werthiems hysterectomy was done for invasive carcinoma of cervix. The number of hysterectomies that were done for ca cervix, were found to be more or less similar to different studies shown in table XVIII. In this present series, 2 cases of hysterectomy were done for carcinoma of cervix. So hysterectomy done for pelvic inflammatory disease shows wide variation in different studies. Dicker RC et al. Shows 7.2% while Amirikia Hassan et al. shows 2.03% and present series it is 19.23%. Hysterectomy for ovarian tumor shows incidence of 3.1% in white C. Steven et al., and in the study of Farhana Dewan 7% but in the present study it is 7.69%.

Hysterectomy for endometriosis shows a wide variation in incidence between the different series. Dicker R C et al. have shown incidence was 7.2 whereas white C. Steven et al. had shown 1.3%. In the present series only 9.61% hysterectomy done for endometriosis. Regarding genital prolapsed of various degree, 20% of patients came to RMCH with genital prolaps with or without cystosele, rectocele, enterocele and they were operated by vaginal hysterectomy with ant. Colporrhaphy and post. Colpoperineorrhaphy, that corresponds with the study performed by the Department of obstetrics and gynaecology, Faculty of Medicine, addis ababa,

university of Ethiopia. In their study, uterovaginal prolaps accounted for 19.9% of all major gynaecological operations at Gondar College and 17.2% at Ghandhi Memorial Hospital. Regarding complications of major Gynaecological operations - in a study of complications of hysterectomy by Richard C. Dicker and Joel R. Greenspan, complications occurred in 42.8% cases. In Farhana Dewan's study, complications were in 37% cases and in the present study complication occurred in 30% cases.

The complications in the different series have been compared in the following table. Febrile morbidity is the common complication encountered after major gynaecological operations. The present series shows an incidence of 15% which is near to near Farhana Dewan's study (21%) and Hasan Amirikia (16%). lower incidence of Febrile morbidity depends on use of prophylactic antibiotics, surgical techniques and over all aseptic and antiseptic measures taken.

Urinary track infection was found to be about 7% in Dicher RC et al. series and 6% in Hayneis M Dogulas study. In the present series, it is 5%. Secondary hemorrhage was noted by white C. Steven in 2.16%, Haynes M. Douglas et al. in 2.68% cases. Farida Begum in 1.35%. cases incidence of 1% is noted in this series. The maximum incidence as shown by Dicker RC et al. of 15.4%. Regarding wound infection after major gynecological operations Dicker RC et al. showed the incidence was 5% ad Haynes M Dogias et al had show 4.69% and In the present series it is 4%. Amirikia Hassan et al. has shown a very low incidence of 0.14%. Respiratory tract infection occurred 6.75% in Begum Farida's study and 2.68% in Haynes M. Douglas study. In the present series it is in between the two. There is a high incidence 11.11% in Plauche C. Warren series and low incidence 0.4% in Dicker C. Richard study. Pelvic infection occurred in 4.62% pt. of Plauche C. Warren et al study and 2.68% in Haynes M. Douglas study. In the present study, 3% whis is in between the two. Minimum pelvic infection 1.3% found in Dicker C. Richard et al series. Thrombo-embolism occurred in 0.37% of Hassan Amirikia et al study and 2.77% of Phauche C. waeren series. In the present series, there was no such case. Death occurred in a percentage of 0.67%, 0.1, 0.26 and 1.35 in different series studied. In present series there was no death among 100 cases.

Duration of hospital stay after major operation ranges from 4-32 days with an average of 10.5 for abdominal and 11.5 for vaginal hysterectomies in the study of Amirikia H. et al. but in the present study it was 12.4 days. The result of present study is closely related to the above study.

## Conclusion

With the availability of highly skilled personnel with improved surgical expertise, safe anesthesia and collaboration of other specialized medical personnel in RMCH, the mortality rate in our series was found nil, but the postoperative complications like, fever, respiratory tract infection, epigastric pain, UTI wound infection still frequent in a significant number of patients in our series which brings about much distress of the patients. The reason behind it are low socioeconomic status, illiterate with poor knowledge about hygiene, people can not afford costly antibiotics, and other necessary medications. Again, hospital facilities were also minimum, too many patients needed to be accommodated in small place, many patients had to be operated in a same date, true post operative isolation would not be possible and finally, visitor restriction in the post operative ward also could not be strictly maintained. There could be, other reasons behind it. In future more detailed randomized studies can be undertaken to reveal there sorts of preventable postoperative complications and there by reducing the suffering of the patients.

## References

1. Chowdhury, T. A. "Editorial about techniques in major gynecological surgery," BJ of obstetrics and gynaecology, September 1992, 72.
2. Vartinen, H.S. & Makieneh, J. I. "Mortality after gynaecologic operation in Finland 1986-1991," British Journal of obstetric Vartinen, H.S. & Makieneh, J. I. "Mortality after gynaecologic operation in Finland 1986-1991," British Journal of obstetrics and gynaecology, January 1995: Vol. 102: PP 54-57.
3. Cosson, M, : Lambaue, E. : Boukerrou, M., Querleu, D. & Crepin, G. " Vaginal, laparoscopic or abdominal hysterectomies for benign disorder: immediate and early post operative complications in France," Eur-J\_Obstet\_Gynaecol, 2001 Oct, 98 (22): 231-6.
4. Bhatla, N. "Jeffcoate's Principles of gynaecology, " 6th edition, Arnold publication, London, 2001.
5. Dutta's, D.C. "Text book of gynaceology, " Third edition, 2001.
6. Howkins, J. & Hudson, C. N. "Show's Text book of operative gynaecology," 5th edition, Churchill Livingstone Edinburgh, London and New York, 1986.
7. Good, M.; Stanton, H. M.; Grass, A. J.; Anderson, G. C., Makii, M. & Geras, J. "pain after gynaecological surgery in France, Pain-Manag-Nurs, 2000 Sep; 1(3): 96 -104.
8. Chowdhury, R. H. U., Chowdhury, T. A. & Hossain, S. M. N. "Use of prophylactic antibiotic in gynaecological abdominal operation," J. Inst. Postgrad. Med. Res., 1994; 9(1): 9-11.
9. Ahmed, F. & Wasti, S. "Infectious complications following abdominal hysterectomy in Karachi, Pakistan," Int-J Gynaecol-Obstet, 2001 Apr; 73 (1): 27-34.
10. Thoruton, W. N. & Peters, E. A. "Repair of vaginal prolapsed after hysterectomy, " Am. Jour. Of. Obs. And. Gyn, 1983, 147:140.
11. Grundsell, H. & Larsson, G. "Operative Management of vaginal vault prolapsed following hysterectomy," British Jour. Of Obs. And. Gyn., Aug. 1994, 91; 808-811.
12. Lansma, H. H. "Post hysterectomy vault prolapsed; Saeral colpexy with Dura Mater Graft," Am. Jour. Of Obs. And Gyn., Apr 1984, Vol. 63: 577-581.
13. Lin, H. H.; Chen, C. D.; Chen, C. K.; Chen, C. L., Chow, S. N. & Huang, S. C. "Is total abdominal hysterectomy with bilateral salphingo-oophorectomy adequate for New FIGO stage 1 endometrial carcinoma?" British Jour of Obs. And Gyn., Feb. 1995, Vol. 102: 148-152.
14. Amirikia, H. & Evans, T. N. "Ten years review of hysterectomies: Trends, Indication and risks," Am. Jour. Of Obs. And Gyn., Vol. 134: 431-437.
15. Meltomma, S. S.; Makinen, J. I., Taalikka, M. O. & Helenius, H. K. "Incidence, risk factors and outcome of infection ia a 1-year hysterectomy cohort: a prospective follow up study, " J-Hosp-Intect, 2000 Jul; 45(3): 211-7.
16. Conde, A. A. "Intrafascial hysterectomy: out comes and complications f 867 operation," Int-J\_Gynaecol\_Obstet., 2000 Mar, 68(3): 233-9.

17. Wu, M. P., Lin, Y. S. & Chow, C. Y. "Major complications of operative gynaecologic laparoscopy in southern Taiwan," *J-Am-Assoc-Gynaecol-laparosc.*, 2001 Feb, 8 (1): 61-7.
18. Roover, J. P.; Vander, B. J. G.; Huubvander, V. C., Fousert, D. M. & Heintz, A. P. "Does mode of hysterectomy influence micturation and defecation in Netherlands," *Acta-obstet\_Gynaecol-Scand.*, 2001 Oct, 80 (10): 945-51.
19. Tsai, J. Y.; Saigo, P. E. Brown, C. & Laquaglia, M. P. "Diagnosis, pathology, staging, treatment and outcome of epithelial ovarian neoplasia in patients age <21 years," *Cancer.*, 2001 Jun, 91 (11): 2065-70.
20. Milicic, D., Sperm, M. & Bagovic, D. "A method for the repair of vesicovaginal fistulas in Croatia," *Int-J-Gynaecol-obstet.* 2001 April, 73 (1): 35-9.
21. Monaghan, J. M. "Bonney's Gynaecological surgery, "Nint edition, Bailliere Tindall.
22. Dicker, R. C., Scally, M. J. & Greenspan, J. R. "Hysterectomy among women in reproductive age: Treands in United states, 1970-1978," *JAMA*, 1982, 248: 323-327.
23. Lee Nancy C.; Dicker, R. C., Rlein, G. L. & Ory, H. W., "Confirmation of the pre-operative diagnosis for hysterectomy," *Am. Jou. Of Obs and Gyn.*, 1984, 150: 183-187.
24. Dewan, F. :Clinical study on 100 cases of abdominal hysterectomy. Dessertation, Bangladesh college of Physicians and surgeons, 1989.