



Gynecologic Diseases are a Neglected Entity in Rural India: Depiction by Retrospective Analysis of 948 Cases of Gynecology Operation Theatre of a Rural Government Medical College

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Abstract

Objectives: Healthcare is the right of every individual but lack of quality infrastructure, lack of quality infrastructure, dearth of qualified medical functionaries and non-access to basic medicines and medical facilities thwarts the reach of health care services to rural population. Women are burdened from diseases and injury related to sexuality and child bearing and scenario is worst for rural women. This study highlights the ignorance and neglecting of her own health by women because of her familial and social responsibilities.

Material & method: A cross-sectional descriptive study conducted in a newly established rural medical college from Jan 2012 to September 2015. Data analyzed statistically with spss20.

Results: 948 major gynecological procedures performed during this time period, uterovaginal prolapse was the most common (43.88%) symptom and vaginal hysterectomy with pelvic floor repair was most common (36.70%) performed procedure. Sociodemographic profile revealed a mean age of 46.67±2.44 year (46.51%), grand multiparity (56.21%), illiteracy (65.62%), rural locality (80.06%), agriculture laborer (64.14%) and low socioeconomic status (62.93%) as the characteristics of women we operated. 33.01% patients took 10 years or more to seek health care for their ailments.

Conclusion: It's high time for the society and for women themselves to stand together and take steps to bring change in their living conditions and health status.

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Introduction

Health for all by the year 2000 was mere a slogan in India. There are 700 million people living in 636,000 Indian villages where condition of healthcare facilities is deplorable. 31% of the population travels more than 30km to seek healthcare in rural India [1]. However it's the female part of society that bears this burnt more than her male partner. This study further supports this by medical facts. As we all know hysterectomy is the most common procedure after caesarian section on women worldwide. Majority times it is therapeutic, sometimes its life saving like peripartum hysterectomy and sometimes it is an adjunct to other procedures like staging laparotomy in ovarian malignancy cases. Now a days more emphasis is towards the conservative procedures instead of radical procedures like endometrial resection by different ways for abnormal uterine bleeding (AUB) various conservative modalities for fibroids, repair procedures for prolapse are favored all over the world [2].

But in rural areas patients still favors the radical approach as they can't afford repetitive medical visits because of poverty and poor availability of health care services. Rural women are actually burdened because of problems of sexuality and reproduction compare to their urban counterparts [3]. In view of gynecology aspects the biggest problem is uterovaginal prolapse [3]. They continue to bear the brunt of disease until it becomes unbearable. With the help of data of gyne operation theatre of a rural medical college this study is highlighting the lack between need and feed in rural healthcare system. This study aims to highlight the ignorance of females regarding their own health.

Material and Methods

This is a cross-sectional descriptive study conducted in the department of obstetrics and gynecology from Jan 2012 to Sept 2015 in a newly established medical college in rural area. This Medical College started its outpatient on 1st Sept 2011 and slowly it achieved a tertiary care hospital, meeting the needs of rural population. We caters rural area in 40 km radius and gets a chance to see and understand the problems of rural women. Records of all the elective major surgeries were analyzed for sociodemographic profile of patients, presenting complaints, surgery performed, intraoperative and postoperative complications. Special emphasis was given on the onset and duration of symptomatology. We analysed data with spss20. The departmental protocols include papsmear of all the preoperative patients, all patients of AUB undergo endometrial sampling prior to surgery; ovaries are removed routinely in postmenopausal patients undergoing abdominal hysterectomy because of poor patients awareness for their own health. In premenopausal patients ovaries were removed only if associated with pathology. As per history socioeconomic status was graded according to Kuppuswamy classification.

While calculating the gap between onsets of symptoms to presentation, for mass per abdomen it was calculated the time it was noticed first by patient or diagnosed by any other modality, in infertility patients one year of marriage was excluded, in asymptomatic patients the day on which they came to know about their pathology. In the study literate means those who can write, read and understand, not mere those who can write their name.

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Observations

A total of 948 routine major surgeries were included in the study group. The observation This (Table 1) highlights differentiation of patients age according to final diagnosis and age group. The youngest patient operated was 13 years old and

maximum was 86 years old. 46.51% patients had a mean age of 46.67 ± 2.44 years. 51.37 ± 12.30 was mean age of patients operated for uterovaginal prolapse, 42.44 ± 9.90 years for patients with fibroid uterus and 47.91 ± 5.97 for patients of abnormal uterine bleeding. In malignancy the mean age for surgery was 48.52 ± 5.97 .

Table (1): Age of patients according to final clinical diagnosis

Age of patient	Prolapse	AUB with uterus ≤ 12 wrk	Fibroid uterus ≥ 12 wk with or without AUB	Benign ovarian cyst	Malignancy of female genitalia	W/F Issue	Complete perineal tear	Primary amenorrhea	Total no of patients	Mean age of patients in different age gps.
<21yr	--	--	--	5	1	--	--	10	16(1.68)	18.77 \pm 1.10
21-30	38	--	8	20	--	59	6	--	131(13.81%)	25.89 \pm 2.88
31-40	36	28	15	16	2	21	6	--	124(13.08%)	35.21 \pm 2.94
41-50	179	59	158	6	39	--	--	--	441(46.51%)	46.67 \pm 2.44
51-60	108	31	11	2	8	--	--	--	160(16.87%)	54.75 \pm 2.88
61-70	42	19	--	--	--	--	--	--	61(6.43%)	64.06 \pm 2.26
>70	13	2	--	--	--	--	--	--	15(1.58%)	74.66 \pm 3.67
Mean age of patient as per disease	51.37 \pm 12.30	47.91 \pm 6.95	42.44 \pm 9.90	32.02 \pm 9.64	48.52 \pm 5.97	27.39 \pm 4.14	30.00 \pm 3.54	19.00 \pm 1.05		
Total	416(43.88%)	139(14.66%)	192(20.25%)	49(5.16%)	50(5.27%)	80(8.43%)	12(1.26%)	10(1.05%43.	948	

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Analysis of (Table 2) shows that 80.06% patients operated were rural and 65.61% were illiterate, 94.40% were multiparous and 56.22% were grand

multiparous. 83.75% of total study population was heavy worker 91.14% patients were of lower class.

Table (2): Socio demographic profile of patients

Sr no	Sociodemographic profile of patients	Prolapse	AUB with uterus ≤ 12 wk	Fibroid uterus ≥ 12wk with or without AUB	Benign ovarian cyst	Malignancy of female genitalia	W/F Issue	Complete perineal tear	Primary amenorrhea	Total no of patients	Mean age of patients
1	Rural	366	111	153	25	40	44	10	9	759	80
2	Urban	50	28	38	24	10	36	2	1	189	20
Literacy status of patients											
1	Literate	95	64	65	22	8	58	4	10	326	34
2	Illiterate	321	75	127	27	42	22	8		622	66
Occupation of patients											
1	Housewife	18	11	18	3	2	12	4	2	70	7.4
2	Agricultural laborer	285	89	122	10	32	58	6	6	608	64
3	Laborer other than agriculture	98	18	48	8	10		2	2	186	20
4	Official work	15	12	4	28	6	19	--	--	84	8.9
Socioeconomic status											
1	Lower class	106	08	30	--	4	--	--	--	148	16
2	Upper lower class	266	54	68	15	35		6	4	448	47
3	Lower middle class	29	65	90	6	5	61	6	6	268	28
4	Upper middle class	15	12	4	28	6	19	--	--	79	8.3

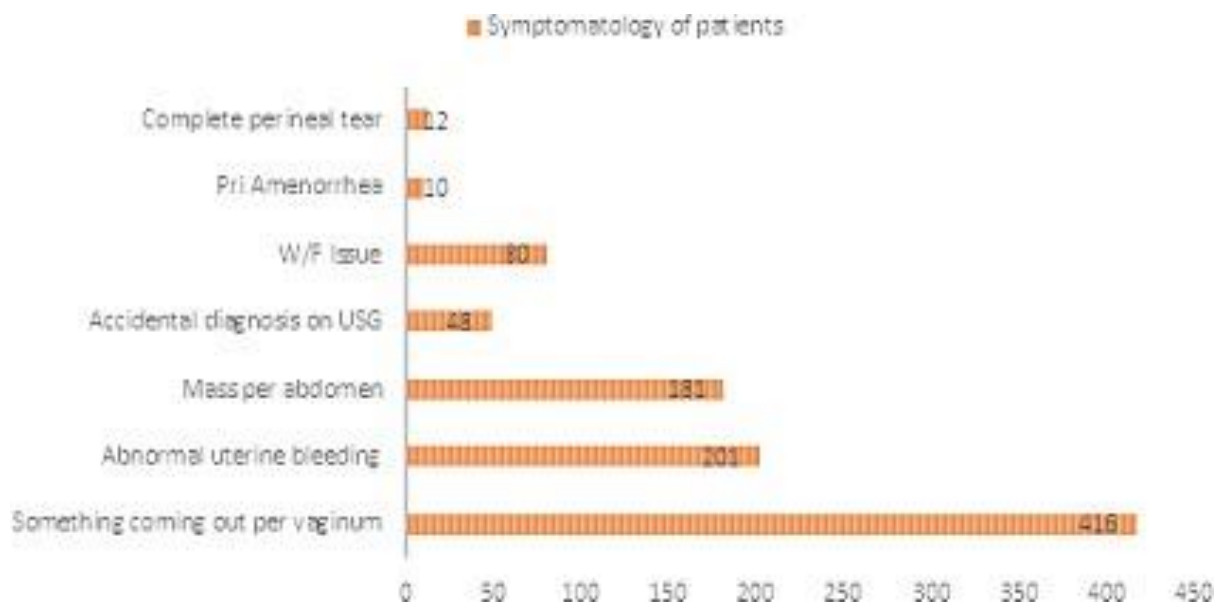
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5	Upper class	2	--	--	1	--	2	--	--	5	0.5
	Total	416	139	192	49	50	80	12	10	948	

As shown in (Figure 1) something coming out per vaginum was the most common presenting symptom followed by abnormal uterine bleeding, mass per abdomen. 5.06% (48) patients were asymptomatic and diagnosed accidentally on ultrasonography for nonspecific pain abdomen. Among patients of prolapse

(416) 5.9% were of vault prolapse, 6.73% were nulliparous prolapse, 10.10% were first or second degree prolapse with big cystoceles, 63% patients had third degree prolapse, 14.42% had procidentia. Among all AUB patients (201), 13.93% patients had postmenopausal bleeding. Among patients for infertility (80) 52.5% patients were tubectomized and recanalization done, rest 47.5% underwent diagnostic laparoscopy.

Figure (1): Symptomatology of the patients



According to (Table 3), 43.24% surgeries performed vaginally out of which 36.70% (348) were vaginal hysterectomy with pelvic floor repair, 45.57% (451) performed abdominally among which total abdominal hysterectomy was the most commonly performed surgery. 8.64% (82) of total surgeries performed laparoscopically and diagnostic laparoscopy for infertility

constituted 4% (38) cases. Benign ovarian cyst became the cause of surgery in 5.16% (49) patients, among these 13 patients had ovarian cyst of 24-30 cm size. Different malignancies totaled 5.27% (50) cases for surgery and majority (32) was ovarian malignancy. Complete perineal tear repair and vaginoplasty constituted 1.26% and 1.05% of all cases.

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Table (3): No. & type of major surgeries performed(total surgeries performed=948 from Jan 2012- Sept 2015)

Surgeries performed vaginally	No. & % of patients	Surgeries performed abdominally	No. & % of patients	Surgeries performed laparoscopically	No. & % of patients
Vaginal hysterectomy with repair	348(36.70%)	Total abdominal hysterectomy with Bilateral/unilateralSalphingooopherectomy	112(11.81%)	LAVH/TLH	26(2.74%)
NDVH	30(3.16%)	Total abdominal hysterectomy	147(15.50%)	Diagnostic lap for infertility	38(4.00%)
Fothergills repair	10(1.05%)	Extended hysterectomy	18(1.89%)	Lap ovarian cystectomy	18(1.89%)
Complete perineal tear	12(1.26%)	Staging laparotomy for malignancy	32(3.37%)		
Vaginoplasty	10(1.05%)	Ovarian cystectomy	31(3.27%)		
		Recanalization	42(4.43%)		
		Rectus sheath sling surgery/sacrocolpopexy	58(6.11%)		
		Myomectomy	11(1.16%)		
Total	410(43.24%)		451(47.57%)		82(8.64%)

This (Table 4) actually demonstrates the period of neglecting by the patient. 6.75% (64) presented within 6 months of development of symptoms. These patients usually include the patients in whom pathology was accidentally diagnosed on ultrasonography and patients of postmenopausal bleeding. 19.93% (189)

patients reported after an average gap of 15.25+5.74 months. This group was constituted by 05 patients of carcinoma cervix, 58 patients of AUB, and 126 patients of fibroid uterus. Among the patients of delay of 10 or more years include majority prolapse patient (31.8%) and a few patients of mass per abdomen and complete perineal tear.

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Table (4): Time taken by patients from onset of symptoms to first doctor visit

Sr. no	Interval b/w development of symptoms and first visit to health personal	No of patients	% of patients	Mean duration
1	Within 6mnths of onset of symptoms	64	6.75	
2	6mnths -24mnths	189	19.93	15.25 ± 5.74(months)
4	25-60mnths	214	22.57	44.88 ± 10.17(months)
5	61-120mnths	168	17.72	89.051 ± 9.46(months)
6	>120mnths	313	33.01	153.17 ± 19.87(months)

The analysis of (Table 5) show that bladder injury is the most common complication encountered intraoperatively. Bladder injury occurred in 04 patients of abdominal hysterectomy, among which two had severe endometriosis and 08 patients of vaginal hysterectomy. All the injuries were diagnosed on table only and managed accordingly. Among 05 patients of ICU shifts one patient had on table shock, 02 patient of gut injury

and 02 patients of TLH, all the patients were shifted back within first 24 hours of surgery. Wound site infection including both from the abdomen site and from the vagina in patients of vaginal hysterectomy. Among 04 patients of sub-acute intestinal obstruction 03 patients responded to conservative management and patient underwent laparotomy as gut get adhered to vaginal stump.

Table (5): Intraoperative & postoperative complications

Sr no	Intraoperative problems	No of patients	% of patients
1	On table shock	01	0.10
2	Bladder Injury	12	1.26
3	Gut injury	02	0.21
4	ICU shift	05	0.52
5	Fever	44	4.64
6	Wound site infection(including vault infection)	56	5.90
7	Subacute intestinal obstruction	04	0.42
8	Resuturing	12	1.26

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Table (6): Histopathological report of patients

Sr.no	Histopathological report	No of patients	% of patients
1	Fibroid uterus	332	28.64
2	Endometrial hyperplasia	89	09.38
3	Endometrial polyp	58	06.12
4	Adenomyosis	102	10.76
5	Benign Ovarian cysts	58	06.12
6	Borderline Ovarian tumor	01	00.11
7	Ovarian malignancy	32	03.37
8	Endometrial malignancy	12	01.26
9	Cervical cancer	06	00.63
10	Endometriosis	12	01.26
11	Atrophic endometrium	108	09.31
12	Normal endometrium	423	44.62
13	Total	1159	

Leiomyoma was the most common pathological finding followed by adenomyosis. Many patients have more than one pathology like fibroid with endometrial hyperplasia or ovarian cyst with fibroid uterus. 44.62% specimens had normal endometrium, 09.31% specimens had atrophic endometrium, 9.38% had endometrial hyperplasia, 6.12% had endometrial polyp. Leiomyoma was found in 28.64% patients. Ovarian pathology was found in 9.50% patients out of whom 03.37% were found to have malignancy.

Discussion

We all do our graduation in medical colleges situated in urban areas and were face to face with mainly with urban or suburban

people as almost all government medical are situated in urban area only. After joining the college I came face to face with rural women, their social condition, and their priorities. In the beginning when patients came with complaints of prolapse, primary amenorrhea, complete perineal tear, they were not only aware that the condition is operable. Later on also either the relatives or neighbors of those patients who were already operated with us used to come for surgery. In the present study of four years 948 major surgeries were performed out of which 713 were hysterectomy for different purpose. The incidence of hysterectomy over total patients attending OPD was 2.34%. Literature reports 7% incidence of hysterectomy in Haryana, 7-8% in Gujarat [4]. In India overall the reported incidence of hysterectomy is 6%, western countries reported the incidence

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upto 10-20% [4,5]. The lower incidence in the present study may be because we are still in the initial phase of our setup and have limited operation days and lack of manpower.

The mean age according to different diseases and age group is shown in (Table 2). 51.37 ± 12.30 was the mean age of patients of prolapse, 47.91 ± 6.95 in patients of abnormal uterine bleeding, 42.44 ± 9.0 in patients of fibroid uterus and 48.52 ± 5.97 was in malignancy. [4] reported 46.2 ± 9.0 for abdominal hysterectomy, 56.2 ± 10.5 for vaginal hysterectomy and 46.7 ± 5.6 for laparoscopic hysterectomy [4]. [6] also reported hysterectomy in patients of prolapse for surgery in 40-59 year age group [6]. [2] Also reported majority of patients of prolapse in 50-59 year age group and fourth decade of life as the age for abdominal hysterectomy [2].

According to sociodemographic profile 80.06% of patients were from rural areas, 56.22% were grand multiparous, 65.61% were illiterate, 83.75% were heavy workers, and 62.86% were from very poor strata. The literature has no study corroborating the health problem of these poor females with their socioeconomic study. Studies by [3,4,6] on prolapse reported multiparity and low socioeconomic status in their patients. As in the present study the place of study was in rural area only so the majority of patients were of rural background. Only 34.33% study population was literate, analysis revealed that it is not only the older generation but illiteracy was seen in even younger patients. According to census still the literacy rate among females in rural India is 58.8% [1]. [3] in their study reported 98.5% patients were illiterate or below primary level of education [3]. Study by [7,8] also reported reproductive ill health like prolapse are strongly associated with economic status, education and occupation of the women and more commonly found in low

socioeconomic status. Data from Employment-unemployment Survey NSS 2004-2005 revealed that about 86% of female agriculture labor and 74% of female farmers are either illiterate, or have education below primary level. Women makes up over 2/3rd of the world's 796 million illiterate and majority lives in rural areas only.

Symptomatic assessment revealed that something coming out per vaginam was the presenting symptom of % patients. Study by [9] reported abnormal uterine bleeding as the most common symptom followed by uterovaginal prolapse, [3] in their study on rural community of Bangladesh also reported uterovaginal prolapse as a very common rural problem. [6] also reported high incidence of prolapse in their study [6]. As the patients in the study from rural community and they have to do lot of work like household work, animal care and field work, that requires prolonged sitting in squatting position. Besides early resumption of work within 42 days of delivery and past multiple history of home delivery also a strong precipitating factor [7].

On assessment of delay 33.12% delayed medical care for themselves for 10 or more years after onset of symptoms. These patients mainly include patients of prolapse uterus, and mass per abdomen. As there was no literature on assessment of delay historical analysis revealed that the factors determines this delay include community beliefs regarding diseases, awareness regarding diseases and availability of health services. As uterovaginal prolapse is known as a disease of child birth subsides with rest and aggravates on working in squatting position. These patients seek medical advice when it becomes difficult for them to do their routine work in squatting position or when they develops problem of retention of urine because of huge cystoceles. The same way 08 patients of mass per abdomen took medical advice only when it became impossible for

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them to sit in squatting position and earn wages. Patients with AUB also delayed their presence as it is a common belief that menstruation becomes irregular during perimenopausal period. That's why these patients came to us as AUB with severe anemia. In patients of postmenopausal bleeding there was no delay of more than 06 months may be a strong belief among females that appearance of menses once they stopped is highly because of carcinoma.

Awareness lack also shown by patients of primary amenorrhea as 50% patients reported to us after marriage when they were not able to consummate marriage because of vaginal aplasia. Out of 12 patients of complete perineal tear 4 patients faced this unhygienic condition for more than 5 years as they were not aware that this condition is treatable. Among malignancy majority patients reporting in OPD are in advanced stage only managed by histopath confirmation and referral to higher centers for chemo radiotherapy, only 50 patients were operated for malignancy.

Histopathologically most common lesion was leiomyoma similar to reference studies [9,10,11,12]. Regarding intraoperative and postoperative complications also results were comparable with other studies [2,4]. The limitation of this study was its retrospective nature, because of that we missed the analysis of details of delay.

Conclusion

Health is not everything but everything else is nothing without health. Rural population constitutes approximately 70% of Indian population. The only way which could lead to the goal of health inclusion is by incorporating impoverish needy rural population specially women through their participation.

Acknowledgment

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Conflicts

There is no conflict of interest among authors.

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