

# 1 Removing Ovarian Tumours Vaginally: The Odyssey of a 2 Gynaecologist

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## 6 **Abstract**

7 Ovarian enlargement can be due to non-neoplastic conditions or neoplastic condition. The  
8 most common functional cyst is the follicular cyst, which rarely is larger than 8 cm. Most  
9 ovarian tumours (80 to 85

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11 **Index terms**— benign ovarian tumours, vaginal hystere- ctomy, vaginal removal of benign ovarian tumours,  
12 veress needle.

## 13 **1 Introduction a) Aims and Objectives**

14 Removing ovarian tumours vaginally.

## 15 **2 b) Selection Criteria**

16 Patients with more than 35 years of age and have completed their family and wanted hysterectomy along with  
17 cystectomy.

18 Patients who have an ovarian mass with investigations suggestive of benign etiology.

19 Author ? ?: Grant Government Medical College and JJ Group of hospitals, Mumbai-08. e-mail:

20 drgunjanjh@gmail.com c) Exclusion Criteria Pts with ovarian mass suggestive of neoplastic etiology.

21 Pts less than 35 years of age and want further child bearing.

## 22 **3 II.**

## 23 **4 Materials and Methods**

24 Study period: April 2014 to April 2018. Place: JJ Hospital, Mumbai. 18 women presented with pelvic mass.  
25 History and clinical examination was done.

26 Trans vaginal ultrasound was done to know the nature of the cyst, excluding the malignant ones; multilocular  
27 appearance, irregular border, intracystic papillary projection or the presence of as cites. Color doppler to rule  
28 out the increased blood flow in malignancy. (Picture1)

29 CT/MRI was done to confirm the benign nature in doubtful cases. (Picture 2) Tumour markers s/o benign  
30 etiology.

31 Preoperatively, the patients were counseled and written consent was obtained for the surgery to be performed  
32 vaginally. In 10 women (55.6%) vaginal hysterectomy was performed for heavy menstrual bleeding. As these  
33 women came from remote areas where follow up was difficult, they wished for a hysterectomy. All the women  
34 consented to possible laparotomy, oophorectomy and hysterectomy.

35 Pre anesthesia fitness obtained. After careful clinical examination, mobility of the uterus and the cyst was  
36 checked for adhesions. This was further as curtained and reassessed under anesthesia. (Picure 3, 4)

37 Vaginal hysterectomy/non descent vaginal hysterectomy done. Endometriomas required adhesiolysis which  
38 was done digitally along with fine dissection. The cyst was gently pulled down with the help of a allis forceps  
39 or babcocks and the cyst fixed abdominally. The head end was raised (Reversed Trendlenberg position) to assist  
40 gravitational forces in bringing the cyst down in the pouch of douglas.

41 For cystic masses a veress needle was used for cyst aspiration vaginally, the veress needle was attached to  
42 a tubing leading to a suction apparatus. The cyst would come down to the pouch of douglas after volume

## 8 DISCUSSION

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43 reduction; there after cystectomy was done. Using the veress needle for aspiration reduces Removing Ovarian  
44 Tumours Vaginally:

45 The Odyssey of a Gynaecologist ost ovarian tumours (80 to 85%) are benign and two thirds of these occur  
46 in women between 20 and 44 years. Normal functioning ovary produces cysts 4-5 times every year. In most  
47 cases, these functional masses are self limiting and will resolve within 2-3 cycles. Sometimes, they persist longer  
48 or become larger than 5 cm size and transforms into pathological condition. The chance of a primary ovarian  
49 tumor in a patient younger than 45 years of age is less than 1 in 15. 1 In postmenopausal women the incidence  
50 of malignant ovarian tumours increases to about 30 %. 2 M the chances of spillage of the cyst contents in the  
51 peritoneal cavity. Image (Image 5, 6, 7)

52 Cystic wall was sent for frozen analysis in doubtful cases Image (Image 8). All frozen analysis were s/o benign  
53 etiology.

54 Prophylactic bilateral salpingectomy was done on all. In postmenopausal women, prophylactic b/l salpingo-  
55 oophorectomy was done .

56 Extra-peritonization of pedicles done. Vault closure done.

57 Histopathological examination of the excised specimen was done by the pathology department of the hospital.

58 Average blood loss was 150 ml to 200 ml. Average time taken for surgery was 1.5 to 2 hrs. (Image 9) Patients  
59 were discharged day 5 post operatively.

60 Image Pre-operative assessment in ot reveals a III.

## 61 5 Results

62 Table 1 shows the age distribution .Maximum women belonged to the age group of 46 to 55 years who underwent  
63 vaginal hysterectomy with removal of benign ovarian cyst vaginally. They compromised about 44.5 % and least  
64 were in the age group of 66 to 75 years. ?? show the parity distribution. Maximum women were multiparous, 50  
65 % had 3 to 4 live issues.

## 66 6 Figure 1

67 Table 3 shows the association with previous surgeries. 5 women had tubal ligation done and 3 had a previous  
68 LSCS. Table 4 and figure ?? depicts that maximum women had pelvic mass upto 14 weeks size. Though there  
69 were 2 women with 30 weeks size pelvic mass.

70 Figure 2

71 Table 5 and figure 3 illustrates that most of the ovarian cysts were simple cysts and serous cystadenoma 55.6%.  
72 Mucinous cystadenoma fall the next with 22.2% and then endometriotic cyst 11%. There was 1 corpus luteal  
73 cyst and 1 cystic teratoma. Endometriomas 11% required adhesiolysis to access the peritoneal cavity. It was  
74 done digitally and with sharp dissection.

75 Figure 3

76 Table 6 shows that 4 ovarian cysts had undergone torsion. There were no intraoperative complications including  
77 rectal / bladder injury.

78 Average blood loss was 150 ml, no patient required blood.

## 79 7 IV.

## 80 8 Discussion

81 Robert Glassgow is credited for the first cystectomy in 1701 AD. Since then cystectomies have been performed  
82 either via the vaginal route or abdominal route.

83 Earlier ovarian cyst aspiration was done by vaginal ultrasonography 3 ultrasound-guided culdotomy using  
84 a renal balloon dilator catheter for transvaginal ovarian cystectomies 4 has been done .Here in this study  
85 veress needle is used after vaginal hysterectomy to aspirate the contents of the cyst and extract it vaginally.  
86 Intraperitoneal spillage of cyst contents is minimized because of direct puncture of the ovarian cyst wall.

87 Though maximum number of women were multiparous, there was 1 nulliparous patient. Nulliparity and even  
88 virginity should not themselves be considered as contraindications to VH or as an indication for the abdominal  
89 route or laparoscopic assistance. 5 16.7% of women had previous LSCS. It was possible to perform vaginal  
90 hysterectomy safely in patients with previous cesarean sections. 6 Vaginal hysterectomy is not contraindicated  
91 per se after previous abdominal pelvic operations. 7 There have been studies, where women with dermoid cysts  
92 were operated on vaginally via the posterior cul-de-sac without laparoscopic assistance. 8 They had concluded  
93 that the vaginal route offers an excellent alternative to laparoscopic surgery and eliminates, in most cases, the need  
94 for invasive laparotomy. We had 1 case of a teratoma (5.6%), where cystectomy along with vaginal hysterectomy  
95 was done successfully.

96 4 Ovarian cysts that were removed had undergone torsion.

97 In postmenopausal women, prophylactic salpingo-oophorectomy on the opposite side should be performed 9 .

98 Vaginal ovarian cystectomy is the only cystectomy procedure that leaves no surgical scars on the abdomen.

99 If vagina is the gateway to the abdomen a big fibroid uterus, large ovarian cysts can be easily removed vaginally.  
100 Every hysterectomy unless absolutely contraindicated should begin by vaginal route. 5 . A uterus with a volume  
101 up to 300 cm 3 or uterine size up to 12 weeks should be dealt vaginally, and as surgeons become more experienced  
102 larger uteri and also the adnexa can be approached in the same manner, at least as trial vaginal hysterectomy.  
103 10 Proponents and practitioners of vaginal hysterectomy have widened their indications and decreased the  
104 contraindications through liberal usage of debulking, performing oophorectomy, laparoscopic evaluation and trial  
105 vaginal hysterectomy. 11 VH with better outcomes and fewer complications than laparoscopic/TAH. 12 Cochrane  
106 Review concluded VH is far superior to other technique and has the best outcomes. 13 V.

## 107 **9 Conclusions**

108 Cystectomies through the vaginal route paves the way for a scarless surgical technique. It offers less blood loss,  
109 with less operative time.

110 With minimum intraoperative complications, minimum hospital stay and a swift recovery.

111 There were no ureteric or bladder /bowel injuries. From pelvic masses of 14 wks to 30 wks size pelvic masses  
112 can be removed vaginally .irrespective of size of tumour. After all surgery through the vaginal route is the  
prerogative of a gynaecologist. <sup>1 2</sup>



Figure 1: Image 3 :

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<sup>1</sup>Removing Ovarian Tumours Vaginally: The Odyssey of a Gynaecologist  
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## 9 CONCLUSIONS

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Age	Frequency	Percentage
35 to 45 Years		22.2
46 to 55 Years		44.5
56 to 65 Years		22.2
66 to 75 Years		11.1

Figure 2: Table 1 :

2figure

Figure 3: Table 2 and figure

2

Parity	Frequency	Percentage
Nulliparous	1	5.6
P1L1-P2L2	5	27.7
P3L3-P4L4	9	50
P5L5-P6L6	1	5.6
P7L7-P9L9	2	11.1

Figure 4: Table 2

4

	Frequency	Percentage
Upto 14 wks	6	33.3
14 to 18 wks	3	16.7
18 to 22 wks	3	16.7
22 to 26 wks	4	22.2
26 to 30 wks	2	11.1

Figure 5: Table 4

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**5**

Types	Frequency	Percentage
Simple cyst	5	27.8
Serous cystadenoma	5	27.8
Mucinous cystadenoma	4	22.2
Corpus luteal cyst	1	5.6
Cystic teratoma	1	5.6
Endometriotic cyst	2	11

*[Note: © 2019 Global Journals]*

Figure 6: Table 5

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Figure 7: Table 3

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	Frequency	Percentage
Serous	1	5.6
Mucinous	1	5.6
Simple cyst	2	11.1

Figure 8: Table 6

## **9 CONCLUSIONS**

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