

Uterine fibroid and infertility: case series

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Abstract

Background

Uterine fibroids are the most common benign uterine tumours in women with estimated incidence of 50% to 60%. They are smooth muscle tumour originating from myometrium. Only 30-40% of fibroids are symptomatic depending on its size and location. There is a current trend of women delaying child birth, the incidence of uterine fibroid increases with advancing age. Fibroid may be associated with 5-10% of infertility cases. Out of which only 1-2.4 % the fibroid is a sole abnormal finding in infertile couple.

Conclusion

Uterine fibroids are commonly found in women of reproductive age. They can lead to reduced fertility and adverse pregnancy outcomes. Fertility outcomes are decreased in sub mucosal and intramural large fibroids; however large subserosal fibroid distorting the normal anatomy should also be removed after excluding other possible causative factors of infertility. In the all cases presented over here size were more than 5-6 cm and location were sub mucosal and even subserosal, which was causing distortion of uterine cavity and its normal alignment. After doing surgical intervention two had successful natural implantation. Others are opting/in process of ART.

Key words- Infertility, Fibroid.

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I. Introduction

Uterine fibroids may be associated with 5-10% of women presenting with infertility, Out of which only in 1-1.24% women it is a sole abnormal reason for infertility. The impact of uterine fibroid on fertility is determined by its location and size. There are few explanations of how fibroids can impair fertility

1. Anatomical distortion of uterine cavity
2. Increased uterine contractility and changes to the endometrial blood supply
3. Changes to the hormonal milieu within the uterine cavity that may have an effect on implantation

There are studies that suggest greater the impact of the fibroid on endometrial cavity, greater the effect on fertility.

Case description-1

A 32 year old nulligravida with married life of 1.5 year, anxious to conceive came to OPD for evaluation and management.

She also complained about mass per abdomen which she has noticed 1 year ago.

Complaining of increased frequency of micturition (day-5 times and night 2-3 times) since 1 week and c/o constipation on and off since 1 month.

Her menstrual cycles were regular with menarche being 14 years, bleeding for 3-4 days and changing 2-3 pads per day no clot passage however started having dysmenorrhea since last cycle.

No significant past history, mother is a known case of hypothyroidism.

Husband is 30 years old working in animation industry no known comorbidities and no addiction and allergy.

No c/o erectile dysfunction,

Premature ejaculation, retrograde ejaculation.

On examination

She had bp-130/90 with other parameters were normal.

Respiratory system and cardiovascular system were normal

On per abdomen examination midline mass of 16 week uterine size noted, mobility present and all borders reached except lower border with firm consistency, smooth surface, overlying skin is normal

Per speculum examination showing cervix and vagina normal and healthy

Bimanual examination uterus is anteverted approximately 14-16 week size with negative groove sign and free and non-tender fornixes, no cervical motion tenderness

Investigations

B positive	TC-5720cm2
Hemoglobin-12.8 gm/dl	RBS- 110mg/dl
Pcv-41%	Urine r and m -wnl
S.Tsh- 5.96 microIU/dl	

Semen analysis was done which was normal also husband’s sugar screening done which was normal (RBS-143 mg/dl)

Usg scan done which showing— uterus in anteverted with size was of 16.6 * 9.8 cm, with posterior wall intramural uterine fibroid of 8* 7.7 cm in size.

Bilateral ovaries and adnexa were normal, right side mild hydroureteronephrosis noted.

Treatment

She was advised for abdominal myomectomy and chromopertubation.

She wanted to get operated from another hospital so we referred her for the same,

She underwent laparoscopic myomectomy with chromopertubation , intraoperative posterior wall fundal fibroid of 9* 6 cm size with firm consistency removal done and bi lateral tubes healthy spillage noted.

1 year after surgery, couple planned pregnancy she conceived successfully by natural method.

Case description-2

A 38 year old G2P1L1 at 36+2 weeks of gestation with previous LSCS with status post abdominal myomectomy came to our OPD for further management.

She is having a married life of 9 years, She tried to conceive naturally in 1st two years and done all evaluation , on doing ultrasound she found out to have 6.6*6*6 cm sub mucosal fibroid in fundal region , she was advised for myomectomy and same has been done 7 years ago she conceived spontaneously 5 years ago and delivered a healthy baby via c-section.

This pregnancy was also a spontaneous conception and she delivered healthy male baby via c section.

Case description-3

A 32 year old Nulligravida with married life of 12 years, anxious to conceive came to OPD for evaluation and management.

Her menstrual cycles were regular with menarche being 12 years, bleeding for 3-4 days and changing 2-3 pads per day no clot passage and no dysmenorrhea

No significant past history,

She has taken fertility treatment however no records were available.

No significant family history.

Husband is 34 years old, security guard doing day duties

No known comorbidities

Alcohol addiction since-10 years.

No c/o erectile dysfunction,

Premature ejaculation, retrograde ejaculation.

On examination

She had bp-140/100 with other parameters were normal.

Respiratory system and cardiovascular system were normal

On per abdomen examination midline mass of 14 week uterine size noted, restricted mobility present and all borders reached except lower boarder with hard consistency, smooth surface, overlying skin is normal

Per speculum examination showing cervix and vagina normal and healthy

Bimanual examination uterus is acutely anteverted approximately 14-16 week size, cervix deviated to left side, posterior foniceal fullness present. With negative groove sign , no cervical motion tenderness.

Investigations

o positive	TC-1100cm2
Hemoglobin-14.2gm/dl	RBS- 134mg/dl
Pcv-41%	Urine r and m -wnl
S.Tsh- 3.56microIU/dl	AMH- 5.78 ng/ml

Semen analysis was done which was normal

Usg scan done which showing— uterus in anteverted with normal size of 73*33*53mm with largesubserosal fibroid of 94*75

Bilateral ovaries and adnexa were normal

Treatment

She was advised for abdominal myomectomy.

This was performed in our set up.

Intra op findings

10*10 cm size subserosal fibroid sitting posteriorly to uterus and causing uterus deviated to right side and distorting its alignment,

Myomectomy done

On cut section calcification noted.

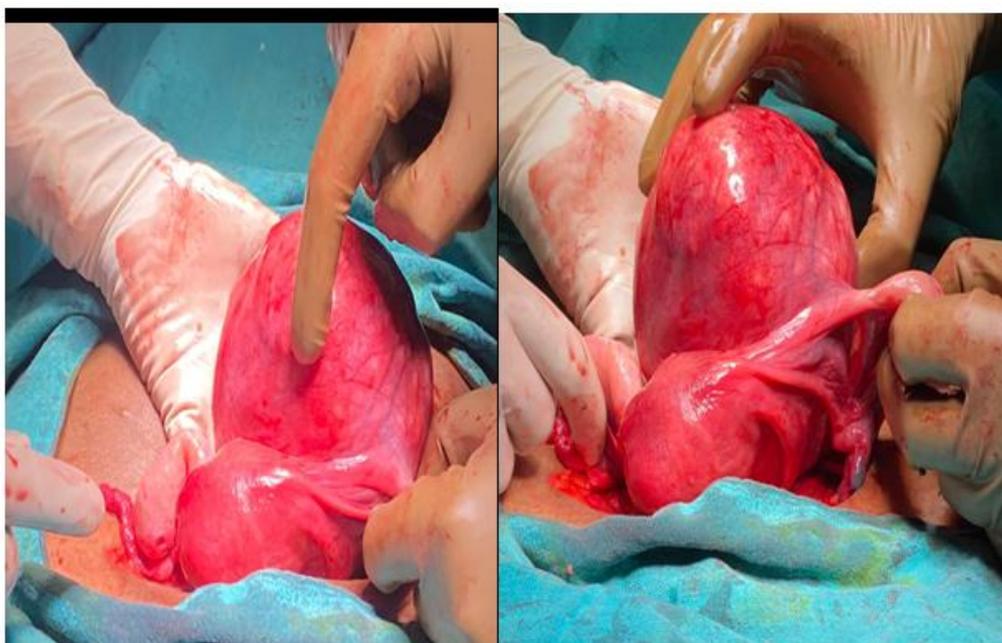
B/L round ligament plication done

B/L chromopertubation done and spillage noted

She was discharged on antihypertensive and hormonal injectable contraception

She was advised to avoid pregnancy for another 1 year.

She had spontaneous conception however at 7 weeks of gestation she had spontaneous abortion.



Case description-4

A 30 year old nulligravida with married life of 8 month came with complain about mass per abdomen which she has noticed before 4 months.

complaining of dysmenorrhea on day 1 of cycle since 1 year however cycles are regular and she is bleeding for 4-5 days and changes 2-3 pad per day, cycle length is 1-1.5 month, no h/o passage of clots

She is complaining burning micturition with increased frequency of micturition since 1 month.

Also complaining of dyspareunia since 4 months, no post coital bleeding

No c/o weight gain and weight loss.

Husband is 36 years old working as a driver, no known comorbidities and no addiction and allergy.

No complains of erectile dysfunction, premature ejaculation, retrograde ejaculation.

On examination

She had bp-140/90 with other parameters were normal with BMI of 27.1 kg/m²

Respiratory system and cardiovascular system were normal

On per abdomen examination midline mass of 30-32 week uterine size noted, mobility present and all borders reached except lower boarder with firm consistency, smooth surface, overlying skin is normal

Per speculum examination showing cervix was pulled up and vagina was normal and healthy

Bimanual examination cervix was behind symphysis pubis at 2 o'clock position, anterior and right forniceal fullness present

Investigations

O positive	TC-6960cm2
Hemoglobin-12.7gm/dl	RBS- 110mg/dl
Pcv-41%	Urine r and m – protein and blood 3+ UKB + PLENTY pus cells 4-5 epithelial cells
S.Tsh- 5.96 microIU/dl	

Usg scan done which showing— uterus in anteverted with size was of 13.5*10*8.8cm, with large intramural uterine fibroid of 11.5*5.6*8.7cm in size with few areas of calcification and cystic changes likely fibroid Bilateral ovaries and adnexa were normal, right side mild hydroureteronephrosis noted.

Treatment

She was advised for abdominal myomectomy.

This was performed in our set up.

Intra op findings

Uterus normal size

Left sided anterior wall subserosal fibroid of 10*8 cm, weighing 300gm with variable consistency, bosselated surface and irregular margins-myomectomy done

Right fundal anterior subserosal fibroid of 17*15cm, weighing 1.2 kg with variable consistency-myomectomy done.

B/L polycystic ovary noted and drilling done.



She was discharged on antihypertensive and hormonal injectable contraception

She was advised to avoid pregnancy for another 1 year.

She has not conceived yet, couple are trying natural method of conception using their knowledge of fertile period and tracking basal body temperature.

They are advised for ovulation induction after some investigation; however patient has lost follow up.

II. Discussion

Uterine fibroid commonly found in reproductive age group. As it is well known that submucosal fibroid affects the fertility the most however subserosal fibroid which is not being consider as a cause for infertility, if it's position and size is affecting the implantation and normal fertilization process than myomectomy should be done.

III. Conclusion

Uterine fibroids are commonly found in women of reproductive age. They can lead to reduced fertility and adverse pregnancy outcomes. Fertility outcomes are decreased in sub mucosal and intramural large fibroids; however large subserosal fibroid distorting the normal anatomy should also be removed after excluding other possible causative factors of infertility. In the all cases presented over here size were more than 5-6cm and location were sub mucosal and even subserosal, which was causing distortion of uterine cavity and its normal

alignment. After doing surgical intervention two had successful natural implantation. Others are opting/in process of ART.

Patient consent

Written informed consent has been obtained from the patient for publication of the submitted article and accompanying images.

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