# Case Report on Primary Infertility

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## Abstract

**Introduction:** All and sundry has aspiration to become a mother and who wants to become a mom, substance impotent draw up little one is an elegant hurting fact. Several of us disburse fragment of existence to avert haphazard gestations also trust that if she is prepared to bear a child it will occur with miniature trouble. One be prone to ponder that convey cogwheel from gestation safeguard to fertilization and planning of parturition will make one's way in comparably flush and neat way. Therefore, inability to conceive is a big life stressor, which can be caused by otherwise well-adjusted pairs.

**Patient History:** 26 Years old Mrs. Rajeshree Chaudhari is nulligravida since 2½ year with primary infertility and anxious to conceive. C/O pain in abdomen during menses since 1 year. No irregular menses.

**Past History:** Client has no history of diabetes, TB, hypertension, Asthma, epilepsy, thyroid disease. She has no other history of hospitalization other than obstetrics. No history of blood transfusion.

**Clinical Finding:** Pain in abdomen. Ovarian dysfunction causing the egg development to be absent or diminished.

**Investigations:** Serological Investigations, Sonography, Semen analysis in her Husband and Laparotomy in my client.

**Surgical Management:** The laparotomy was done and the cyst was removed by surgical intervention.

**Medical Management:** Patient was treated with antibiotics, antacids, anti- cholinergic, anti inflammatory, IV fluids and analgesics.

**Nursing Management:** Nurse need to obtain history as prenatal, family and other relevant history. Nurse has to perform primary physical examination and collect other relevant information regarding reports of patients. Give psychological support throughout the counselling. Collect other information about tests, reports and documents. Establish plan of care with family and co-ordinate care with other health care professionals. Maintain privacy and confidentiality of all cases. Ensure follow up and supportive services to individual and family during counselling.

**Conclusion:** Infertility is an important social and medical problem that affects couples all over the world. Factors both female and male are equally responsible. Evaluation is essential for both partners. Treatment depends on the cause of infertility and can vary from ovulation to surgery to ART. My patient come to the hospital as nulligravida with primary infertility and anxious to conceive. As a treatment, cause of infertility detected and exploratory laparotomy is done as a treatment regimen

***Keywords:*** *Primary infertility, laparotomy, Tumor marker, breathing exercises.*

## Introduction

This case is very unique because my patient married before 2½ years. As she belongs to the middle class family, we all know it is very difficult for one women specially who belongs to a middle class family because she has to answer members in her family specially her mother in law. She is nulligravida since 1 ½ years, so the couple have to think about the family planning. The pair are keen to conceive. Barrenness arise to be a crucial well being issue by various cliques. Elevated incidence of the affair magnified its relevance. Large piece of sterility has exist to be associated with environs circumstances as well as in addition earned peril strands. Enormous surrounding situations have stressed necessity to learn unlike seeds of barrenness in single sector. More research now position infertility within broader social contexts and structures of social science, while clinical emphases remain. Methodological issues remain but significant improvements are also apparent.

**Clinical findings:** Pain in abdomen.

Ovarian dysfunction causing the egg development to be absent or diminished.

1. **Diagnosis:** Pain related incision due to exploratory laprotomy.

**Intervention:** - Assessed the level of pain and intensity too. – Provided comfortable devices such as pillows. – Given diversional therapy by asking about the daily activities. – Teached deep breathing exercises. – Administered analgesics as per Physician order.

**Outcomes:** Pain will be reduced to some extent.

2. **Diagnosis:** Fluid volume deficit related to surgical procedure done.

**Intervention: -** Assessed patient hydration status. – Provided frequent oral and skin care. - Urinary output observed, reviewed (Hb/HCT) serum electrolyte. – Given plenty of oral fluids & assisted in IV infusion.

**Outcome:** Fluid volume will be restored.

3. **Diagnosis:** Activity intolerance related to incision given.

**Intervention: -** Assessed patient activity level. – Advised and encouraged to do self care activities like hygienic care. – Paced the activities as per tolerance level. – Advised to take adequate rest and sleep.

**Outcome:** Daily activities will be restored.

**Conclusion:** Inability to conceive carries a stigma in many cultures. Infertility can have deep psychological consequences. Being a nurse, we can play a vital role in it by counselling the couple. We can tell them about the various preventive measures and management of infertility.

**Introduction:** In anthropoids, infecund is an in capacity to obtain parturiency following 1 yr. of lovemaking, unescorted by a genesis including both colleague. So many roots of barrenness incorporating these cathartic arbitration can nursed. 1997 Figures show that around 5% of all heterosexual couples worldwide have a problem with unresolved infertility**.**

However, for at least one year, far more people have been suffering from unintentional childlessness: figures vary from twelve to twenty eight percent. Masculine sterility accounts for twenty – thirty percent of infecund sufferers, whereas twenty–thirty five percent is attributed to woman barrenness and twenty five –forty percent is attributed to joined complications in either parties.In ten-twenty per cent of victims, there is neither reason. Bulk of reason of feminine sterility is ovulatory disorders that are typically evidenced by irregular. Masculine sterilityis probably often caused by insufficiencies in milt and trait of semen is utilized as a proxy compute of masculine fecundity.

## Patient Information:

**Specific Information:**

**Patient**

Name of the patient: Mrs. Rajeshree Sushant Chadhari

Age: 26 years. Sex: Female

IPD No. – 6051480 OPD No. – 3112397

Address: At Thakur Dada Villlage, Bhiwandi, Mumbai

Education: Graduation (B.A.)

Religion: Hindu (OBC)

Marital Status: Married

Duration of marriage: 2.5 yrs

Date of admission: 29/12/2019 at 12:10 pm

Diagnosis: Primary Infertility

**Husband**

Name: Sushant Ramdas Chaudhari

Age: 29 yrs Sex: Male

Occupation: Job in private sector

Income: 30,000/-

**Presenting Complaints:** 26 Years old Mrs. Rajeshree Chaudhari is nulligravida since 2½ year with primary infertility and anxious to conceive.

C/O pain in abdomen during menses since 1 year.

No irregular menses.

**Symptoms**

- unable to get pregnant
- an inability to stay pregnant
- the impossibility of carrying a pregnancy to a live birth

**Medical History:** History of pain during menses since 1 year. She has no history of diabetes, TB, hypertension, Asthma, Epilepsy, Thyroid disease. She has no other history of hospitalization other than obstetrics. No history of blood transfusion.

**Family History:** Mrs. Rajeshree lives in nuclear family with her husband and father-in-law. Name of her father in law is Ramdas Chaudhari, 65 years old, studied upto 4$^{th}$ standard, retired person, no health issues. Her husband name is Sushant Ramdas Chaudhari, 29 years old, graduated one, having job in private sector, no significant health problem. Patient name is Rajeshree Sushant Chaudhari, 26 years old, she is also graduated, homemaker having primary infertility.

Ramdas Sushila Chaudhari

Chaudhari

65 years

Sushant Chaudhari Rajeshree Chaudhari

29 years 26 years

**Key:**

Male

Death

Patient

**Psychosocial History:** Mrs. Rajeshree and her family celebrates all the festivals. She believes in God. She maintains good relationship with her neighbor and her family members. She does not have any kind of psychological problem as such. She belongs to middle class family. Earning source is her husband and father in law. Monthly income is about 35- 37,000/- In her house, toilet, bathroom, tap water is available. Also closed drainage system is present.

**Past Interventions:** There is no specific past interventions that had been done.

**Clinical Findings**

**Physical Examination:**

Date: 28/12/2019 Time: 11 am

General appearance-

Body built – Thin

Health- Good Health

Activity- Less active

Mental Status- Patient is conscious and well oriented, patient looks anxious and weak

Head- Normal

Scalp- Clean

Face – Normal

Skin condition- No jaundice, no cyanosis

Eyes –

Eye brow – Normal

Eye lashes- Normal

Eye lids- Normal, no edema, no lesion

Eye ball – Normal

Conjunctiva- No pallor

Sclera – Normal

Cornea and Iris- Normal

Pupil – Normal reaction to light

Lens – Normal

Vision- Normal

Nose

External nares -No crust or discharge; normal

Nostrils – Normal

Ears

External ears- Normal

Hearing- Normal

Mouth

Lips – dryness present

Odour of mouth- Normal, no foul smell

Mucous membrane – Pallor present, no ulcer, no bleeding

Teeth – No dental caries

Neck

Lymph node – Normal

Thyroid gland – Normal

Range of motion – Normal

Chest

Heart sound – Normal, no crept on wheezing

Heart – $S_1$ $S_2$ normal

Pulse rate – 96 beats/min, tachypnea

Liver spleen – No spleenomegaly

Upper extrimities

Normal range of motion, no edema

Abdomen

Linea nigra – Absent

Straie gravidarum – Absent

Gastrointestinal system

Loss of appetite

Uterus – feels firm

Urine output – 1500ml, transparent, clear

Lower extrimities

Edema on the ankle or feet absent

General parameters

Height – 155cm

Weight – 52 kg

Vital signs

Temperature – $98.6^0$F

Pulse – 96 beats/min

Respiration – 28 beats/min

Blood Pressure – 130/90 mmHg

**Clnical Findings:** Ovarian dysfunction causing the egg production to be absent or decreased

**Historical and Current Information:** 26 years old Mrs. Rajeshree is Nulligravida since 2 ½ year with Primary Infertility and is anxious to conceive. C/O pain in abdomen during menses since 1 year. No irregular menses. She had menarche at 15 years of age. Duration of menstruation is 30 days cycle and duration of cycle in days is 4-5 days. Menses is regular, average flow, pain during menses. Last date of menstrual history is 13/12/2019 and Expected date of delivery is 20/09/2020. The couple not using precaution since 1 year.

**Diagnostic Testing:**

**Diagnostic Testing:** WBC count is 19.23 UL, while normal range is 4.00-10.00 $10^3$/UL, so it is raised. Neutrophil level is 16.79 UL, while normal range is 2.00-7.00 $10^3$/UL, so it is raised. Normal value of neutrocytes is 2.00- 7.00 $10^3$/UL, while in my patient it is 87.2 %, it is slightly increased. Lymphocytes normal level is 20.0 – 40.0 % and in patient it is 6.5 %, it is decreased one. MCV normal range is 77.0 while in patient it is 80.0-100.0%, slightly decreased. MCH level is 25.4 in patient on other hand normal range is 27.0 – 34.0, so it is slightly decreased. Hemoglobin level is 7gm% and the normal range is 12.0-16.0gm%, so patient is Anemic. Tumor marker CA is 58.71 and the normal range is less than 35.0 unit, so inference is she is having ovarian cancer.

**8b.** Diagnostic challenges

**Semen Analysis:**

Test

Physical Examination

Quantity - 2.5 ml

Colour – Opaque, grey

Consistency – Semi- viscous

Self liquification time within abstellience – 3 days

**Chemical Examination**

Reaction – Alkaline

Fluorescence test – Positive

**Microscopic Examination**

Sperm count semen – 23.2 millions/ml, 60 -110 millions/ml

Mobility(within ½ hrs) - 78 %

Motility (2 hrs) – 63%

Puscells – 4-6 h.p.f.

RBCs – 1-2/h.p.f.

Epithelial cells – 2-3/h.p.f.

Abnormal sperm – Amorphous head sperm seen.

**Sonography**

Name- Rajeshree Sushant Chaudhary

Reffered By – Wadia hospital (R – 218)

Date: 24/12/2019

HCG study was performed by Inj. 76% Urograffin using precaustion.

The uterus is normal in size and contour no intrinsic or extrinsic filling defect seen. Uterine margins are normal in course caliber. No evidence of any hydrosalpinx seen. Free peritoneal spill noted bilaterally.

**Impression:** Uterus and both tubes are normal.

**Diagnosis:** Primary Infertility

**Prognosis:** Infertility is an important social and medical problem that affects couples all over the world. Factors both equally responsible are the females and males. For both partners assessment is critical. Treatment depends on the cause of the infertility and can differ between ovulation and surgery and ART. My patient come to the hospital as nulligravida with primary infertility and anxious to conceive. As a treatment, cause of infertility detected and exploratory laparotomy is done as a treatment regimen. and my patient prognosis is good.

**Therapeutic Intervention:**

**Pharmacologic Intervention:**

1. Tab. Fasigeph, 500mg, oral route frequency is HS, action is antibiotic, side effects are -Vaginal itching, Nausea, Vomiting, Loss of appetite, Constipation, Diarrhea, Headache, Dizziness, a metallic or bitter taste in your mouth, INDICATION- Anerobic infection, Bacterial septicaemia, Upper & lower respiratory tract infection. CONTRAINDICATION-Hypersensitivity,Blood dyscrasia, First trimesterof pregnancy. Nurses Responsibility is hold back medicine, apprise S/S & Central Nervous System decayed physician, monitor INR/PT frequently, praepostor agglutinoid cast iron extent with coincidingemploy,monitor the toxicity of diphenylhydantoin with coincident IV phenytoin
2. Tab. Restyl, 0.5 mg, route is oral, frequency is HS, action is exact mechanism of action not understood, main sites of action may be limbic system and reticular formation, side effects include CNS-Transient mild drowsiness, sedation, depression, CV-bradycardia, tachycardia, hypertension, hives, rash. GI- constipation, nausea, vomiting, incontinence INDICATION- Anxiety disorders, panic attacks, social phobia, premenstrual syndrome, depression CONTRAINDICATION-Hypersensitivity to benzodiazepines, impaired liver or kidney function. Nurses Responsibility is -Use as a taper dosage gradually.Should not use grapefruit juice for administration. Stop alcohol, sleep – or the counter drugs.
3. Tab. Diamol, 40mg, oral route, frequency is TDS, action is Prevents the formation and accumulation of gas. Side effects are Itching, diarrhea, regurgitation, vomiting, heartburn, constipation. INDICATION-Antigas, bloating,

intestinal disorder, gastrocardiac syndrome. CONTRAINDICATION-Hypersensitivity to simethicone, intestinal obstruction, intestinal perforation. Nurses responsibility is do not exceed recommended dosage, do not take the tablet in an empty stomach, increase of missing dose, use it as soon as you notice.

4. Inj. Avil, 25 mg(2cc), route is IM, Frequency is stat, action is antihistamine with anticholinergic, non steroidal anti- inflammatory drug.Confusion and serious allergic side effects, blurred vision, reaction, irregular heartbeat, urinary retention. INDICATION-allergic reaction, runny nose, itching skin, skin rash, inner ear disorders. CONTRAINDICATION- Do not use if sensitive to any ingredient in this product. Nurses responsibility is take with or soon after food, it can cause drowsiness, which may decrease with time,take only as instructed by the doctor

**Surgical Intervention**

**Laproscopic Findings**

**Left chaudate cyst 8*8cm identified:** Wall pealed and cyst evacuated with tooth forcep grasper. Written consent checked. Patient given lithotomy position with general anesthesia. Parts painted and drapped. Bladder evacuated with k-90 catheter foley's catheter inserted. Sim's speculum inserted and anterior cervical lip held with vulsellum. Hysteroscope introduced. Cyst punched and contents aspirated. Cyst wall retrieved and sent for HPR. Hemofasis checked. Bleeding could not be controlled using bipolar artery forceps from the cyst and ovarian edges. Decision of exploratory laparotomy taken. Laproscope and parts retrieved under ventouse. Skin incision closed with vicryl 2-6. Incision taken, abdomen opened in layers and uterus is identified. Bleeding points traced, bleeding controlled using hemostatic sutured with vicryl no. 1. Right sided endometrious identified 3*3 cm two fibroid cyst 0.5*1 cm identified, 1*2 cm simple cyst identified. Cystectomy done cyst wall enated and sent for HPR. Contents of simple cyst atropoted and sent for fluid cytology. Hemoplasis checked and peripheral wash given. Hemistasis confirmed. Intraperitoneal drain kept. Abdomen closed in layers using vicryl no. 1. Skin closed with vicryl no. 1 subcuticular. Dry sterile disting given. Patient tolerated procedure well. Approximated blood loss was less . 10 PCV given intro- OP.

**Preventive Intervention:** Most infertility medications are given by injections. We understand that this aspect of fertility treatment causes many couples anxiety. You may want to make an appointment to meet with sister for hands-on injection training. Sister will instruct and demonstrate the proper technique for patient and her partner. Also return demonstration of the technique guided . nurse are committed to providing patient with the skills and confidence patient need to complete this part of treatment.

**Self-Care:** Women should do something that makes her feel attractive- No matter what messages she may have internalized, dealing with infertility makes her no less of a women. Sehe could be putting herself on her favorite outfit, sprizing on some expensive perfume or cologne, breaking out favorite lipstick.

She should do something tha makes her body feel good- when she is dealing with infertility, her body can feel like a war zone that never quite does what she want it to do. Make up with her body by doing something that makes it feel fantastic. She should go a hike up her favorite nearby hill, she should take a dip in the hot tub.

She should do something that makes her feel erotic-when she is trying to conceive, sometimes sex feels like a means to an end and her pleasure takes a back seat. She should get back in touch with her erotic nature by spending some one-on-one time with herself . she may light some candles, put on some Enya, grab her favorite toy and explore her own body.

She may practice daily affirmations like she should think that she is complete the way she is, she can achieve her goals or she is worthy of love. She may practice yoga or mindfulness, meditation. May she is into adult coloring books or hugging her pet cat under a blanket fort.

**Administration of Therapeutic Intervention:** Clomiphene citrate persuades rescue of gonadotropins.

Gonadotropin releasing hormone analogs in form similar to natural GnRH, induce massive release of GnRH into circulation.

Gonadotropins –Human gonadotropin menopausal (HMG), which contains equal amounts of FSH and LH.

Bromocriptine – suppress production of prolactin.

**Changes in Therapeutic Intervention:** There were no specific changes in therapeutic intervention.

**Follow up and outcomes**

**Clinician Patient Assessed Outcomes:** There are various outcomes to be performed for the patient with primary infertility.

General and sexual history has to be taken. Visual evaluation and pelvic exam for women.

Fertility evaluation of female partner – evidence of evaluation.

Diagnostic evaluation like Hysterosalpinogram (HSG), Laparoscopy to determine state of uterine cavity.

Assessment of male partner fertility-semen analysis.

Intrauterine insemination

Assisted Reproductive Technology (ART)

ART- Fertilization In Vitro

ART – Gamete Intra-casualty Transfer(GIFT)

ART – Zygote Intra-casualty Transfer (ZIFT)

ART –Intracytoplasmic Injection of Sperms (ICSI)

In my patient, Laparoscopy is performed.

Important Follow-Up Diagnostic and Tolerability Test Results & Intervention Adherence

**Semen Analysis:** Semen analysis was done in which no any kind of abnormality was found and amorphous head sperm seen in analysis.

**Sonography:** No evidence of any hydroscopinx seen. Free peritoneal spill noted bilaterally.

Uterus and both tubes are normal. No intrinsic and extrinsic filling defect seen.

**Laparoscopic Findings:** Left chaudate cyst 8*8 cm identified, which was corrected by laparoscopy, cystectomy done, cyst wall enatedand sent for HPR, contents of simple cyst atropoted and sent for fluid cytology.

**Adverse and Unanticipated Events:** There were no adverse and unanticipated events as such found during follow up.

## Discussion

**A scientific discussion of the strengths and limitations associated with this case report:** As this is a very unique case and most of the couple nowadays face with infertility problem, it is very important to study the case in every aspect. Primary infertility can be treated now, many medical and also surgical interventions are available for the treatment. Now, in many hospitals well equipped ART Centers and also In – Vitro Fertilization Centers are available.

Research related to prolificacy with CAH among virile is disputed. The fertility in CAH males was assumed to be natural and the therapy might not be appropriate for fertility[1-4]. 18 out of 20 people in that patient series find apparent natural fertility, demonstrated by paternity and regular sperm counts. The authors also identified two untreated patients and two patients who had not received care many years before assessment, all of whom beared 1-3 babies. On physiological assessment we had natural claret levels of gonadotropin and T. Accompanied recognition of hellenic Congenital and Hyperplasia and glucocorticoid therapy prolificacy estimate was decreased among population of all adult Finnish males. The reason for that is the lack of sperm tests. It remained available, but considered trivial emotional alteration to long term sickness or inadequate replacement of glucocorticoids. Otherside, lofty prevalence of cullions deformities and irregular milt sum up has been presently identified in category of thirty males (age 15 yr) who have been regularly supervised at one institution. Nine out of 16 fertility patients tested using either milt add up; seven men had stock fecundity. Fecundity issues were either cause of subduing of the hypothalamicpituitary-cullions axis with subsequent tiny tests as well as reduced development of spermatozoa, or due to uprooted bullocks suprarenal reposes, which encounter suit overgrowth under beneath dreadful Adrenocorticotropic hormone invigoration. This concludes that stated buds sequentially enlarge either destroy cullions substrate, evolving in low T development, sterility too. Lately, Murphy et al. identified client along oligozoospermia cause of obstacles by suprarenal recline stuff, dicisively located at the funicle of the testes.Tumors of suprarenal recline, also linked to barrenness. The distinction between the two pathogenetic pathways can be made by computing agglutinin gonadotropin degree, which are even elevated for testicular rest tumors.

**Discussion of the relevant medical literature with references:** In one case the very high circulating concentrations of T.(5) showed serum gonadotropin repression. It was also associated with increased serum estrogens, which originated from

Straightly amid adrenal transference of the suprarenal testoids also from acting through gray matter flat to impede Gonadotropin Releasing Hormone expel. Its agglutinogen estriol and T in our patient were typical. Regrettably, we haven't tested serum estronol. Cyclopental may be extra effective stilboestrol forerunner relative T and our patient has developed it in high quantities. It appears probable that an increase in the production of hypothalamic estrogen could occur in male CAH patients cause of confined cyclopentanal sweeten to estriol and be responsible for a hypothalamic release inhibition of GnRH(6). Following the use of antiestrogen clomiphene (6), the conjectureexpanded flush Follicle Stimulaing Hormone and Leutinizing Hormone. It has been shown recently that mestranol chiefly governers of Follicle Stimulating Hormone excretion in masculine in terms of sex steroid input and that T primarily strives its comentary sequel on FSH by aromatizing to oestriol. Consequently, in the present case, the bit part of postulated enlarge in regional hexestrol synthesis comprise put up longer to FSH repression than to the Leutinizing Hormone emission. Bearing note that he generally had go round T concentration, Follicle Stimulating Hormone lack solitary may have been the key explanation for his sterility.

**The scientific rationale for any conclusions:** Infertility among young adults materialize on the rebel in US and growing aggregate of pompous adults of all ages are searching for solutions. In vitro fertilization tactic also their dissimilarities append to extra conventional operative and therapeutic therapies for this disarray since 1978. However, modern strategies for generative non-observance own uplifted communal and executive bother over attributed benchmark, communal surveillance and commercial in quickness of their maturing and accretion. Arguments built beside the discrete health centres regarding their achievement ratio are therefore unbolted to exploitation[7,8].

## Conclusion

Infertility is a significant social and medical issue that affects couples all over the world. Equally responsible are both the female and male factors. Assessment of both partners is vital. Treatment depends on the infertility cause and ranges from ovulation to surgery to ART. My patient come to the hospital as nulligravida with primary infertility and anxious to conceive. As a treatment, cause of infertility detected and exploratory laparotomy is done as a treatment regimen.

**Patient perspective:** Patient was telling that she is nulligravida since 2.5 years. So she is eager to conceive. She had not taken any kind of treatment brfore but now she is anxious to conceive. As she is not having irregular menses, or any other problem, she is anxious to know the exact problem and wanted to treat it.

She came to the hospital. All the tests had been done like blood tests, sonography, semen analysis of her husband and laparotomy was also done. Blood tests, sonography and semen analysis were normal. Only in laparoscopic findings, left chaudate cyst 8*8 cm was identified that was corrected by surgical intervention. So her prognosis is good and now she is satisfied with the treatment she received.

The patient did not give any informed consent.

**Ethical Clearance:** Taken from institutional ethics committee.

**Source of Funding:** Self.

**Conflict of Interest:** Nil.

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