

International Journal of Research in AYUSH and Pharmaceutical Sciences

Case Study

AYURVEDIC MANAGEMENT OF MALE INFERTILITY (OLIGO ASTHENO TERATOZOOSPERMIA) DUE TO VARICOCELE; A SINGLE CASE STUDY

Ramesh Kumar K.L^{1*}, Venkatesh.S²

*¹Assistant Professor, Dept. Basic Principles, Govt. Ayurveda Medical College, Mysore, Karnataka.

²Professor, Dept. of Roga Nidana, Govt. Ayurveda Medical College, Mysore, Karnataka.

Keywords: Male infertility, Varicocele, Oligo astheno teratozoospermia Panchakarma chikitsa, Shaman Chikitsa. Viirechana.

ABSTRACT

Male infertility is very commonly associated with Varicocele, which causes blood pooling, and it inhibits the production and quality of semen. *Ayurveda* offers a range of medical management opportunities, including *Panchakarma chikitsa* and *Shaman Chikitsa*. *Viirechana* helps to relieve testicular swelling. And other *Shukra prasadaka*, *Shukra shodhaka* and *Shukrala dravyas* have very good impact in the production and function of *Shukra dhatu*. A single case study has been successfully treated with absolute *Ayurveda* way of diagnosis and treatment.

INTRODUCTION

Infertility is a condition affecting one fifth to one sixth of couples in reproductive age. Within the field of reproductive health, infertility implies a deficiency that does not compromise the physical integrity of the individual, nor is it life-threatening. However, such deficiency may negatively impact the development of the individual, bringing about frustration and weakening the personality, since most couples consider having children as a vital objective. As compared to other species, the human being is highly inefficient in terms of reproduction. The fertility rate per cycle is about 20% and the accumulated pregnancy rate in couples with proven fertility is ~90% after 12 months and 94% after 2 years. ^[1] In India the prevalence is around 23% ^[2], in a preliminary study by the World Health Organization multi-center study, 45% of infertile men were found to be affected by oligospermia or azospermia ^[3-5]

Definition

Infertility is defined as the incapacity to fulfil pregnancy after a reasonable time of sexual intercourse with no contraceptive measures taken. The terms sterility and infertility are sometimes used interchangeably and at times define different populations. In the Spanish

literature, the definition of the word sterility is the difficulty to fulfil pregnancy, whilst the term infertility is used when pregnancy develops but is interrupted at some point; hence, the term is used as a synonym of recurrent miscarriages. On the contrary, in the English literature the term infertile refers to a couple that fails in achieving pregnancy, either because of the impossibility to become pregnant through natural means (sterility) or whenever the possibilities exist but pregnancy does not occur (subfertility) or if pregnancy does develop but does not lead to a live new born. In contrast, the fertile population is defined as those who do become pregnant after some reasonable time of regular sexual intercourse. The concept of "reasonable time" is debatable; the World Health Organization (WHO, 1992a) as well as the European Society of Human Reproduction and Embryology (ESHRE, 1996) in their recommendations mention a 2 year minimum deadline for developing pregnancy. If pregnancy does not occur after that time, the couple is considered to be infertile. From the practical point of view, most physicians initiate study of an infertile couple following 1 year of failed pregnancy attempts, Fertility is the capacity to give birth to one live newborn. ^[6]

CASE HISTORY

A 28 year old man presents for evaluation following three years of unsuccessfully attempting to father a pregnancy, he has completely negative medical and surgical history, he is taking no medications, does not smoke or consumes alcohol. The previous history of the patient revealed the treatment taken in the past for the same, the couple has been visited to IVF centre for the evaluation and treatment. There, it was found that the female partner has no apparent fertility issues.

The patient's female partner was a 26 year old woman with no known fertility concerns, she reports regular menstrual cycle pattern and flow, and her past medical history is negative for any surgical or medical conditions that might affect her fertility status. The male partner was diagnosed with Grade two Varicocele and his semen analysis dated 11-09-2018, revealed ejaculated volume of 4.8 ml semen, with the sperm concentration of 13 million/ml, the sperm motility rate of 35% and 60% of morphological defect were found along with 5-6 puss cells/hpf.

Physical examinations of the Patient revealed, the testes descended bilaterally with normal size and consistency, there were palpable tortuous veins were present in the right testes, suggestive of Grade two Varicocele and the left testes was normal. Epididymis glands and Vasa differentia were unremarkable to palpation, the prostate was normal to the palpation. And all other general physical examination were non-significant.

With the above clinical history and physical and laboratory examination, the patient was provisionally diagnosed as oligo astheno teratozoospermia, with grade two Varicocele. Based on the clinical and investigational findings, the case can be equated with *Shukra dushti* and *Shukra ksaya* from the perspective *Ayurveda*. As per the principles of *Ayurveda*, *Shuddhashukra* is the result of *Samyak aharaparinama* and *Dhatu poshana*. Since *Shukra dhatu* is the *Atyantanga bhira dhatu*, the nourishment of this *dhatu* mainly depends upon the unobstructed *Dhatuvyuhana*. *Shukradhatu* being a *Soumya dhatu*, derives its nourishment mainly from *Balavardhaka*, *Ojovardhaka*, *Rasayana*, *Vajikara* and *Shitavirya dra vyas*.

In this case, the patient had Grade two Varicocele, which causes blood pooling in the testicular veins, the excessive retention of this *Rakta dhatu* in tortuous veins, will transmit its *Ushna guna* to the *Soumya guna pradhana shukra dhatu*, which decreases the *Utpatti* of *Shukra* and its quality, and also since the patient found to be having increased puss cells in the semen is a sign of *Shukra dushti*.

Treatment Plan

Based on the above *Samprapti* and *Vyadhinivishchaya*, it is understood that, the Varicocele is the primary cause which is affecting the *Shukra utpatti*, though the management of Varicocele requires surgical intervention, here the medical line of treatment was planned to address the patients concern. To alleviate the effect of Varicocele on *Shukrotpatti*, the best possible way is to reverse the *Samprapti* of blood pooling (*Rakta sanchaya*) and help to overcome the infertility issue in the present condition, which was addressed through the following methods.

METHODS

Shodhana Chikitsa

Virechana was given.

Dipana Pachana: Tab.*Agni tundi vati* 2 tid, after food with *Ushna jala anupana* given for three days.

Snehapana: *Amrita Prasha ghrita* was given for drinking in *Arohana karma* started with 30 ml, and increased 30 ml each days for five consecutive days, on the 6th day morning, the *Samyak snigdha lakshana* was obtained.

Vishramakala: Followed by *snehapana*, *Sarvangabhyanga* with *Bhaspa sweda* for three days was given.

Virechana: On the third day of *Vishramakala*, after *Sarvanga abhyanga* and *Bhashpa sweda*, patient was given *Trivrit lehya* 90 grams at 8.00AM with *Ushnajala anupana*. Patient had about 22 *Vegas*, he was hemodynamically stable after *Shuddhi* and initiated *Madhyamashuddhi samsarjana karma* for five days classically.

B.Shamana Chikitsa

After the completion of *Samsarjanakarma* and obtaining of *Prakrita bala*, the patient was advised the following *shaman Chikitsa*

1. Sarvangasana

Sarvangasana, *Yogik* postures were advised for the first seven days for five minutes, then gradually increased to ten minutes per day once in the morning regularly.

2. Cold pad pack over testes (Shitopachara)

A cotton pad was dipped in cold water, instructed to wrap around the testes completely for ten minutes daily at around 9.30 pm, regularly.

3. Raktaprasadana

Mahamanjishtadi kashaya 15 ml with equal quantity of water at 6.00 AM and 6.00PM in empty stomach for one month.

Tablet *Kaishora guggulu* 2 bid for one month.

4. Shukra shodhaka

Ushirasava 30ml with equal quantity of water after food, two times daily.

Amalaki churna 150 grams, mixed with 5 grams of *Vanga bhasma* thoroughly mixed was advised to take one 6 grams bid with *Kshira anupana*, after food, for one month.

5. Shukra prasadana & Shukrala

A combination of *Gokshura*, *Shweta musali*, *Shatavari* each 50 grams, with five grams of *Abhraka bhasma* were mixed thoroughly, and given 6 gram bid, with milk after food, till the desired results are obtained.

6. Pathya: *Kshira*, *Masha*, *Aja mamsa*, *Mudga*, Unpolished rice.

7. Apathya: *Ushna*, *Katu*, *Tikshna*, *Ati lavana*, *Ati vyayama*

RESULTS

After the giving the above treatment, a repeat Semen analysis was done on 26/03/2019, and it revealed the following findings.

Semen Volume: 4.8 ml

Sperm count: 20 million/ml

Motility: Improved to 55%

Morphological changes: Abnormal cells reduced to 45%

This findings shown, positive response to the initial treatment, the patient was advised to continue *Sarvangasa*, cold water pack, *Shukrala* and *Shukra prasadaka chikitsa* regularly, along with prescribed *Pathyaapathya*. In the meantime, the female partner was also advised to take *Phalaghrita* 10 grams, once daily with *Ushna jalaanupana* before food regularly.

A repeated Semen analysis was done again on 30/10/2019, which reveals the following findings.

Semen Volume: 3.6ml

Sperm count: 24 million

Motility rate: 60%

Morphological changes: 40% Defects

As there is a significant progress, patient was advised to follow the same protocol further, in the month of March 2020, the patient's wife had LMP on 9/3/2020. On 24/4/2020 she consulted an obstetrician, she tested Positive for UPT. On 4th May 2020 she underwent obstetric scan, which revealed single live intra uterine pregnancy of seven weeks five days.

DISCUSSION

Tri Upastambhas (*Nidra*, *Ahara* and *Abrahmacharya*) are very basic need of any living system for the survival and continuation of life, In *Charka chikitsa sthana Vajikarana adhyaaya*, the importance of parenthood has been explained beautifully. Here having children is not only to develop his generation, but it also a matter of social respect and pride.^[7] If a couple doesn't have a progeny in a specific time, then it leads to stress, and other social problems, mainly psychological issues would manifest. Modern system of medicine with its advancement of technological innovations, has went long way ahead in infertility care. But it is always unparallel with the natural way of giving birth. In this regard Ayurveda offers wonderful treatment possibilities, without causing much distress to the patient. In the present case the patient was recommended certain surgical interventions and IVF at one stage, their timely approach to Ayurveda system has proved to be successful. In this case, the patient developed infertility issues, post vericocele.

A varicocele is a vascular lesion characterised by dilatation and tortuosity of the spermatic veins. It is commonly found in adolescents and young adults. Varicocele is found in approximately 15% of adult males, but the incidence could go as high as 40% in patients attending infertility clinics and up to 80% in those with secondary infertility^[8-10]. Varicoceles predominantly affect the left side (90% of cases) with bilateral varicoceles present in 10% of patients^[11, 12].

Complications of Varicocele

Semen abnormalities: Varicocele is associated with impairment in spermatogenesis mainly in the form of low or absent count (oligozoospermia), decreased sperm motility (asthenozoospermia) and abnormal sperm

morphology (teratozoospermia) in infertile males presenting with varicoceles. These abnormalities can occur in isolation or in combination (known as oligoasthenoterato-spermia or OAT syndrome). This effect was first described in 1965 by MacLeod [13] who described the above seminal abnormalities in patients with varicocele. He also introduced the concept of 'stress pattern' of semen analysis based on the presence of more than 15% tapered forms of sperms. These deranged semen qualities associated with varicoceles can be found in adolescents as early as 17 years of age [14]. A number of mechanisms have been attributed to semen abnormalities.

Increased Scrotal Temperature: The spermatic veins leaving the testicles form a communicating meshwork of veins (the pampiniform plexus) that encircle the arteries. This produces a counter-current heat-exchange mechanism to cool the arterial blood as it enters the testicles [15]. This mechanism is abolished in patients with varicocele causing elevated scrotal temperatures. This will eventually lead to an abnormal elevation in temperature in the intratesticular microvascular blood and interstitial fluid with the subsequent increase in the metabolic activity leading to depletion of the intracellular glycogen with the resultant testicular injury [16]. Furthermore, spermatic enzyme activity controlling DNA synthesis and polymerase activity function optimally at 33–34°C and therefore are inhibited at higher temperatures. This can be reversed after varicocele surgery. [17]

These two mechanisms due to Varicocele, definitely harm the normal production and function of *Shukradhatu*. Here, varicocele is the *Nidanarthakara* vyadhi for the *Shukra dushti* and *Ksaya*. The plan of treatment was made to solve the issues related to Varicocele and *Shukra dushti*.

Shodhana: The treatment was planned with *Shareerika shuddhi* at first, because *Virechana* helps to relieve *Shotha*, it helps to remove *Sthanikapitta* and *Rakta dosha dushti*, and also helps to re-establish the movement of *Vata (Vatanulomana)*, which is very important in *Dhatu utpatti*. *Amrita prasha ghrita* was selected because of its *Vajiksara* property and also it's a good *Balya* and *Pittahara* properties. After *Virechana*, once the patient attained *Prakrita sharirika bala* other treatment was planned.

Shamana: *Sarvangasana* was advised initially for five minutes daily, followed by 10 minutes once daily. It mainly helps to dislodge the blood accumulated in the spermatic veins and also reduces the physical damage to the spermatic veins, this would help to solve accumulation of *Dushita rakta*, thus helps to restore normal spermatogenesis. Similarly, the cold water cotton pad pack was also aims to reduce the increased local temperature, which is disturbing the *Shukrotpatti*. Since *Shukra* is a *Soumyadhatu*, maintaining adequate temperature is very essential for *Prakrita Shukrotpatti* and its *Karma*. *Mahamanjishtadi kashaya* was chosen for *Raktaprasadanakarma*, because *Manjishta* is included in *Pittasamshamana gana* by *Susruta*, it has *Tikta kasaya rasa* and it is a very important *Rakashodhaka dravya*. [18] And *Kaishoraguggulu*, predominantly has *Amrita*, which is *Pitta shamaka* and *Rakta shodhaka*, *Kaishora guggulu* reduces *Ushma* and other *Pitta* symptoms and does *Raktaprasadana karma* also.

Shukra shodhana was necessary to achieve, for this purpose *Ushirasava* was chosen, *Ushira* is included in *Pitasamshamani gana*, has *Tikta* and *Madhura* rasa, has got *Shita virya*, which is very useful in bringing down the *Stanika ushma* at the testes. It is also has *Raktarodhaka guna*, which helps to prevent blood pooling in the testes. [19] Along with these medicine, *Vanga bhasma* 5 grams mixed with *Amalaki churna* 150 grams (which is used as a *Yogavahi* and *Rasayana*) was given 6 grams bid. *Vanga* is known for its usefulness in *Kaphaja*, *Medoja* and *Pramehagna* properties. It has *Tikta rasa*, stimulates *Vata dosa*, which is necessary to activate the production of *Shukradhatu*. [20]

For *Shukra prasadana* and *Shukrala*, a multi herbo-mineral combination of *Shweta musali*, *Gokshura*, *Shatavari*, each 50 gram and a five gram of *Abhraka bhasma* was made in to a powder, which was given 6 gram bid with milk to increase the quality and quantity of *shukra dhatu*. *Musali* is a well-known drug for *Shukrotpatti*, has *Madhurarasa* and *Shitavirya*, has *Balya*, *Brimhana* and *Rasayana*, *Vajikarana* property, it is extremely useful in *Shukrakshaya*. [21] All the above drugs are known *Shukrotpadaka* and *Shukraprasadaka dravyas*, *Abhraka* is a very good *Rasayana* and *Vajikaradravya*, it is described as *Gauriteja* (essence of *Parvati*), reduces *Balaksaya*, *Vata* and *Pitta*. Has *Shita virya*, promotes

Shukradhatu utpatti and promotes *Ayush*. It can cure all diseases if it is taken with appropriate medicine and *Anupana*.^[22]

Along with all these medications it is very important to follow the *Pathyaharas*, and avoid all contra indicated *Ahara* which are antagonistic to the *Utpatti* of *Shukra*. With the above treatments, the semen analysis patient shows a remarkable progress in the quantity and quality of the semen. The Total count which was 13 mill/ml On 11/9/2018 was improved to 20mill/ml on 26/03/2019 and then on 30/10/2019 it went up to 24 mill/ml. In the same

Semen analysis reports

| S.No | Test | Observation on 11/9/2018 | Observation on 26/03/2019 | Observation on 30/10/2019 | Normal Observation value |
|------|---------------------------|--------------------------------------|---|---------------------------------------|--------------------------|
| 1. | Volume | 4.8ml | 4.8 ml | 3.6ml | 2-5 ml |
| 2. | Colour | Pearl white | Pearl white | Pearl white | Pearl white |
| 3. | Odour | Seminiferous | Seminiferous | Seminiferous | Seminiferous |
| 4. | pH | Alkaline | Alkaline | Alkaline | Alkaline |
| 5. | Puss cells | 5-6 cells/hpf | 5-6 cells/hpf | 6-8 cells/hpf | < 2 cells/hpf |
| 6. | Sperm count | 13 mill/ml | 20 mill/ml | 24 mill/ml | >20 mill/ml |
| 7. | Morphological Abnormality | 60% | 45% | 40% | |
| 8. | Motility | | | | |
| 9. | Active motility | 35% | 55% | 60% | |
| 10. | Sluggish motility | 25% | 25% | 20% | |
| 11. | Non motile | 40% | 20% | 20% | |
| 12. | Impression | Asthenozoospermia with poor motility | Asthenozoospermia with normal sperm count & fair motility | Normal Sperm count with fair motility | |

CONCLUSION

The cases of Infertility is on rise due to stressful lifestyle and inappropriate food habits, there are so many direct and indirect causes are contributing for male infertility. Varicocele is one such cause, which may result in infertility. Early diagnosis and proper line of management through Ayurveda can definitely help patients. Before that, understanding the patient from the perspective of Ayurveda, planning justifiable line of treatment would definitely help patients in recovery.

REFERENCES

1. Dr.Santiago Brugo Olredo, Definition and Causes of Infertility, Vol-2, No-1, Reproductive Bio Medicine, Online Webpaper, 2000/027.
2. Zargar AH, Wani AI, Masoodi SR, Laway BA, Salahuddin M. Epidemiologic and etiologic aspects of primary infertility in the Kashmir region of India. *Fertil Steril* 1997; 68:637-43
3. Irvine DS. Epidemiology and aetiology of male infertility. *Hum Reprod* 1998 Apr;13 Suppl 1:33-44.
4. Dabaja AA, Schlegel PN. Medical treatment of male infertility. *Transl Androl Urol* 2014; 3(1):9-16. 7.
5. World Health Organization. Infecundity, Infertility, and Childlessness in Developing Countries. DHS Comparative Reports No 9. Calverton, Maryland, USA: ORC Macro and the World Health Organization; 2004.
6. Dr.Santiago Brugo Olredo, Definition and Causes of Infertility, Vol-2, No-1,

- Reproductive Bio Medicine, Online Webpaper, 2000/027.
7. Acharya Y.T, Charaka Samhita of Agnivesha, Chikitsasthana 2/1/19-21, 5th Edition, Varanasi, Chaukhambha Prakashan, 2007, PP:391.
 8. Meacham RB, Townsend RR, Rademacher D, Drose JA: The incidence of varicoceles in the general population when evaluated by physical examination, gray scale sonography and color Doppler sonography. J Urol 1994; 151:1535-1538.
 9. Jarow JP: Effects of varicocele on male fertility. Hum Reprod Update 2001;7:59-64.
 10. Gorelick JI, Goldstein M: Loss of fertility in men with varicocele. Fertil Steril 1993;59: 613-616.
 11. Skoog SJ, Roberts KP, Goldstein M, Pryor JL: The adolescent varicocele: what's new with an old problem in young patients? Pediatrics 1997;100:112-121.
 12. Gat Y, Bachar GN, Zukerman Z, Belenky A, Gornish M: Varicocele: a bilateral disease. Fertil Steril 2004;81:424-429.
 13. MacLeod J: Seminal cytology in the presence of varicocele. Fertil Steril 1965;16:735-757.
 14. Paduch DA, Niedzielski J: Semen analysis in young men with varicocele: preliminary study. J Urol 1996;156:788-790.
 15. Dahl EV, Herrick JF: A vascular mechanism for maintaining testicular temperature by counter-current exchange. Surg Gynecol Obstet 1959;108:697-705.
 16. Goldstein M, Eid JF: Elevation of intratesticular and scrotal skin surface temperature in men with varicocele. J Urol 1989;142:743-745.
 17. Agger P: Scrotal and testicular temperature: its relation to sperm count before and after operation for varicocele. Fertil Steril 1971; 22:286-297.
 18. Priyavrat Sharma, Dravyaguna Vijnana, Vol-2, Vegetable Drugs, Chaukhambha bharti Acadmy, Varanasi, 2005, PP: 800.
 19. Ibid; PP: 115.
 20. Dr.Ashok Satpute. Rasa ratna Samucchaya, Chapters 1-11, Sanskrit text with English translation, First edition, Chaukhambha Sanskrit Pratishthan, Delhi, 2003, PP:140.
 21. Priyavrat Sharma, Dravyaguna Vijnana, Vol-2, Vegetable Drugs, Chaukhambha bharti Acadmy, Varanasi, 2005, PP: 560.
 22. Dr.Ashok Satpute. Rasa ratna Samucchaya, Chapters 1-11, Sanskrit text with English translation, First edition, Chaukhambha Sanskrit Pratishthan, Delhi, 2003, PP: 18-19.

Cite this article as:

Ramesh Kumar K.L, Venkatesh.S. Ayurvedic Management of Male Infertility (Oligo Astheno Teratozoospermia) due to Varicocele: A Single Case Study. International Journal of Research in AYUSH and Pharmaceutical Sciences, 2020;4(7):420-430.

Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**

Dr. Ramesh Kumar K.L.

Assistant Professor,

Dept. Basic Principles,

Govt.Ayurveda Medical College,

Mysore, Karnataka.

Email: dr.ramesh.mysore@gmail.com

Disclaimer: IJRAPS is solely owned by Mahadev Publications - A non-profit publications, dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJRAPS cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJRAPS editor or editorial board members.



ವಿನಾಯಕ ಡಯಾಗ್ನಾಸ್ಟಿಕ್ ಲ್ಯಾಬೋರೇಟರಿ VINAYAKA DIAGNOSTIC LABORATORY

193, 16th Cross, 4th Main, Vidyaranyapuram, Mysuru-08, Cell: 8147943860

| | | | | | |
|-------------|-----------------|---------|----------|-------|------------|
| Name: | [REDACTED] | Lab No; | 59 | Date; | 11.09.2018 |
| Ref. By Dr. | Dr.M.S.Sujatha. | Age: | 28 Years | Sex: | Male |

SEMEN ANALYSIS REPORT.

| Test | Observation | Normally |
|----------------------------|--|---------------------|
| 1. Period of abstinence :- | 4 days. | 2 - 5 days. |
| 2. Time of collection. - | 7.10 am | |
| 3. Time of examination :- | 7.30 am | |
| 4. Liquefaction time. :- | complete after 20 mins. | within 30 mins. |
| 5. Volume :- | 4.8 ml. | 2 - 5 ml. |
| 6. Colour :- | Pearl white. | pearl white. |
| 7. Odour :- | semiferous. | semiferous. |
| 8. pH :- | Alkaline. | Alkaline. |
| 9. Pus cells :- | 5 - 6 cells/hpf. | < 02 cells/hpf |
| 10. RBCs - | Nil. | Nil. |
| 11. Sperm cell count :- | 13 mill/ml. | > 20 mill/ml |
| 12. Motility :- | Liq. time. 1 st hr. | 2 nd hr. |
| | Actively motile - 35% | 20% |
| | Sluggishly motile - 25% | 30% |
| | Non-motile - 40% | 55% |
| 13. Fructose test ; | positive. | |
| 14. Abnormal forms - | 60% abnormal forms seen ; sperm cells with rudimentary tails . short stubby tails are seen. Increased in head size and Occ. Lecithine Granules are seen. | |

Impression :- Asthenozoospermia with poor motility

*** End of Report ***


 Consultant Pathologist



ವಿನಾಯಕ ಡಯಾಗ್ನೋಸ್ಟಿಕ್ ಲ್ಯಾಬೋರೇಟರಿ
VINAYAKA DIAGNOSTIC LABORATORY

193, 16th Cross, 4th Main, Vidyaranyapuram, Mysuru-08, Cell: 8147943860

| | | | | | |
|-------------|-----------------|---------|----------|-------|------------|
| Name: | [REDACTED] | Lab No: | 120 | Date: | 26.03.2019 |
| Ref. By Dr. | Dr.M.S.Sujatha. | Age: | 28 Years | Sex: | Male |

SEMEN ANALYSIS REPORT.

| <u>Test</u> | <u>Observation</u> | <u>Normally</u> |
|--|---|---|
| 1. Period of abstinence.- | 4 days. | 2 -5 days. |
| 2. Time of collection. - | 7.20 am | |
| 3. Time of examination :- | 7.50 am | |
| 4. Liquefaction time.: - complete after 30 mins. | | within 30 mins. |
| 5. Volume :- | 4.8 ml. | 2-5 ml. |
| 6. Colour :- | Pearl white. | pearl white. |
| 7. Odour :- | semiferous. | semiferous. |
| 8. pH :- | Alkaline. | Alkaline. |
| 9. Pus cells :- | 5 - 6 cells/hpf. | < 02 cells/hpf |
| 10. RBCs - | Nil. | Nil. |
| 11. Sperm cell count :- | 20 mill/ml. | > 20 mill/ml |
| 12. Motility :- | Liq. time. | 1 st hr. 2 nd hr. |
| Actively motile - | 55% | 35% 25% |
| Sluggishly motile - | 25% | 30% 35% |
| Non-motile - | 20% | 35% 40% |
| 13. Fructose test : | positive. | |
| 14. Abnormal forms - | 45% abnormal forms seen ; A sperm cells with large head, fusiform head and Radimentary Tails, Some sperm cells with middle piece seen | |

Impression :- Normal sperm cell count with Fair motility.

With Asthenozoospermia

*** End of Report ***


Consultant Pathologist



ವಿನಾಯಕ ಡಯಾಗ್ನೋಸ್ಟಿಕ್ ಲ್ಯಾಬೋರೇಟರಿ
VINAYAKA DIAGNOSTIC LABORATORY

193, 16th Cross, 4th Main, Vidyaranyapuram, Mysuru-08, Cell: 8147943860

| | | | | | |
|-------------|-----------------|---------|----------|-------|------------|
| Name: | [REDACTED] | Lab No: | 130 | Date: | 30.10.2019 |
| Ref. By Dr. | Dr.M.S.Sujatha. | Age: | 28 Years | Sex: | Male |

SEMEN ANALYSIS REPORT.

| Test | Observation | Normally |
|----------------------------|---|---------------------|
| 1. Period of abstinence. - | 4 days. | 2-5 days. |
| 2. Time of collection. - | 8.10 am | |
| 3. Time of examination - | 8.40 am | |
| 4. Liquefaction time:- | complete after 30 mins. | within 30 mins. |
| 5. Volume :- | 3.6 ml. | 2-5 ml. |
| 6. Colour :- | Pearl white. | pearl white. |
| 7. Odour :- | seminiferous. | seminiferous. |
| 8. pH :- | Alkaline. | Alkaline. |
| 9. Pus cells :- | 6-8 cells/hpf. | < 02 cells/hpf |
| 10. RBCs - | Nil. | Nil. |
| 11. Sperm cell count :- | 24 mill/ml | > 20 mill/ml |
| 12. Motility :- | Liq. time, 1 st hr, 2 nd hr. | 2 nd hr. |
| Actively motile - | 60% | 25% |
| Sluggishly motile - | 20% | 25% |
| Non-motile - | 20% | 50% |
| 13. Fructose test: | positive. | |
| 14. Abnormal forms - | 40% abnormal forms seen ; sperm cells with rudimentary tails . short stubby tails are seen. Increased in head size and Occ Lecithine Granules are seen. | |

Impression :- Normal sperm cell count with Fair motility.

*** End of Report ***

Consultant Pathologist



Jeevadhara Diagnostic Centre

Center for care, concern & compassion

23 A, 12th Cross, Dr. Gururaj Building, Near Tumpo Stand, MGS Road, Nanjangud. Ph. : 08221 - 297325 Cell : 8740888389

| | | | | | | |
|----------------|---------------------|-----------------------------|---------|---|------|------------|
| Patient's name | REPORT | 29yrs | Ref.No. | - | Date | 04/05/2020 |
| Ref. Doctor | Dr. Sudhasha Vaidya | THANK YOU FOR YOUR REFERRAL | | | | |

OBSTETRIC SCAN- 1ST TRIMESTER

Single normal eccentrically placed intrauterine gestational sac seen.
 Yolk sac seen.
 Fetal pole seen.
Cardiac activity: Present
 No subchorionic collection.

| | WEEKS | DAYS | EDD |
|----------------|-------|------|------------|
| LMP:09/03/2020 | 8 | 0 | 14/12/2020 |
| CRL: 13mm | 7 | 5 | 16/12/2020 |

Uterus :Bulky with homogeneous myometrium echoes. No focal lesions
 Cervix : length is normal 3.3cm, internal OS is closed.
 Adnexa: No evidence of cystic/ solid lesion to visualised extent

IMPRESSION:
 ➤ Single live intrauterine pregnancy of 7weeks 5days.

Suggested : NT scan on 06/06/2020, Anomaly scan on 06/08/2020.

ಕೂಲಿ: ಭ್ರೂಣದ ಒಲಕಾ ವೈಪರೀತ್ಯಗಳು ಅಲ್ಟ್ರಾ ಸೌಂಡ್ ಸ್ಕ್ಯಾನ್ ಮೇಲೆ ಕಾಣಿಸುವುದಿಲ್ಲ. ಭ್ರೂಣದ ವೈಪರೀತ್ಯಗಳ ದೃಶ್ಯ ಮಾಪನ ಭ್ರೂಣದ ಭಂಗಿಯನ್ನು ನಿರೀಕ್ಷಿಸಿ ಅಂತಃ ಗರ್ಭಾಧಾತಿಯ ತಿಂಗಳ ಮೇಲೆ ಅವಲಂಬಿಸಿರುತ್ತದೆ. ಅಲ್ಟ್ರಾ ಸೌಂಡ್ ತಂತ್ರಕರ್ತನ ಸನ್ನಿವೇಶದ ಮಿತಿಗಳಿವೆ. ಇತರ ರಕ್ತ ಪರೀಕ್ಷೆಗಳು ಮಾಡಬೇಕು. ಈ ವರದಿಯು ಅಲ್ಟ್ರಾ ಸೌಂಡ್ ಸ್ಕ್ಯಾನ್ ಮಿತಿಗಳನ್ನು ಅಧ್ಯಯನ ಬರುವ ಪ್ರದರ್ಶನ ಮಾತ್ರ.

Notice: Referring doctor is requested to send patient for review USG with new clinical/lab findings and discuss the case with Radiologist if this preliminary USG impression does not correlate with present diagnosis. USG technique has limitations. This report is an impression by interpretation of Ultrasound images and is not a diagnosis

Dr. Santhosh S
 Radiologist & Sonologist.

ಹಳೆ ರಿಪೋರ್ಟ್ ಗಳನ್ನು ಸ್ಕ್ಯಾನ್ ಮಾಡುವಾಗ ತರಬೇಕು *Bring all old reports for every appointment*

Facilities : Pathology Lab - Digital X-Ray - 4d Ultra Sound Scanning - ECG - Echo - TMT - ETC
All Tests are done by Fully Automated Analyser, Working Hours : Morning : 7-30 a.m. to 8-00 p.m. (All



Jeevadhara Diagnostic Centre

Center for care, concern & compassion

23 A, 12th Cross, Dr. Gururaj Building, Near Tempo Stand, MGS Road, Nanjangud. Ph : 08221 - 297325 Cell : 8746860309

REPORT

| | | | | | | |
|----------------|---------------------|-----------------------------|---------|---|------|------------|
| Patient's name | [REDACTED] | 29yrs | Ref.No. | - | Date | 06/06/2020 |
| Ref. Doctor | Dr. Sudhasha Vaidya | THANK YOU FOR YOUR REFERRAL | | | | |

ROUTINE OBSTETRIC SCAN - NT

Single intrauterine fetus with good fetal movements and fetal cardiac activity. FHR - 147bpm.
Presentation & lie : Variable lie.
Placenta : Anterior upper & mid segment, Grade '0'.
Amniotic fluid : Adequate.
Cervix : length is normal 3.4cm, internal OS is closed.

Fetal parameters:

| | cm | Weeks | Days | | Weeks | Days | EDD |
|-----|-------|-------|------|----------------|-----------|------|------------|
| BPD | 1.8cm | 12 | 6 | LMP:09/03/2020 | 12 | 5 | 14/12/2020 |
| HC | 7.2cm | 13 | 0 | AUA | 12 | 6 | 13/12/2020 |
| AC | 5.9cm | 12 | 5 | EFW | 64+/-9gms | | |
| FL | 0.9cm | 12 | 5 | | | | |

NT : 1.3mm

Nasal bone seen

No obvious anomaly detected at present.

IMPRESSION: (Poor acoustic window)

➤ Single live intrauterine fetus of 12-13 weeks.

Suggested: Anomaly scan on 03/08/2020.

ಸೂಚನೆ: ಭ್ರೂಣದ ಉತ್ತಮ ಚಿತ್ರಣಕ್ಕಾಗಿ ಅಲ್ಟ್ರಾಸೌಂಡ್ ಸ್ಕ್ಯಾನಿಂಗ್ ಮೇಲೆ ಕಾಣಿಸುತ್ತಿರುವ ಭ್ರೂಣದ ಚೈಲೋಸ್ಟೋಮಿಯಾ ಅಥವಾ ಅನಿರೀತ ಅಂಶಗಳ ಗುರುತಿಸುವಿಕೆ ತಿಂಗಳ ಮೇಲೆ ಆದರಿಸಬೇಕು. ಅಲ್ಟ್ರಾಸೌಂಡ್ ತಂತ್ರಜ್ಞಿಕೆ ಇನ್ನೂ ಅದರ ಮಿತಿಗಳಿವೆ, ಇತರ ರಕ್ತ ಪರೀಕ್ಷೆಗಳು ಮಾಡಬೇಕು. ಈ ವರದಿಯು ಅಲ್ಟ್ರಾಸೌಂಡ್ ಸ್ಕ್ಯಾನಿಂಗ್ ಮಿತಿಗಳನ್ನು ಅರ್ಥೈಸಲು ಬರುವ ವೈದ್ಯರಿಗೆ ಮಾತ್ರ.

Notice: Referring doctor is requested to send patient for review USG with new clinical/lab findings and discuss the case with Radiologist if this preliminary USG impression does not correlate with present diagnosis. USG technique has limitations. This report is an impression by interpretation of Ultrasound images and is not a diagnosis

Dr. Santhosh S
Radiologist & Sonologist.

ಈ ರಿಪೋರ್ಟ್ ಗಳನ್ನು ಸ್ಕ್ಯಾನಿಂಗ್ ಬರುವಾಗ ತರಬೇಕು *Bring all old reports for every appointment

Facilities : Pathology Lab · Digital X-Ray · 4d Ultra Sound Scanning · ECG · Echo · TMT · ETC
All Tests are done by Fully Automated Analyser, Working Hours : Morning : 7-30 a.m. to 8-00 p.m. (All Da