Case Study

AYURVEDIC MANAGEMENT OF MALE INFERTILITY DUE TO OLIGOSPERMIA AND VARICOCELE: A CASE STUDY

Jiji V*, Priyanka R1, Asha ST2, Asha Sreedhar3

*PG Scholar, 3Professor & HOD, Dept. of Prasutitantra and Streeroga, Govt. Ayurveda College, Thiruvananthapuram, Kerala, India.
2Professor & HOD, Dept. of Prasutitantra and Streeroga, Govt. Ayurveda College, Kannur, Kerala, India.

ABSTRACT
Infertility is defined as the failure of a couple to achieve conception after one year of regular sexual intercourse without any contraception. Male infertility can be defined as any health issue in a man that lowers his chance of impregnating a fertile female partner. Current data reveals that about one third of all infertility cases is due to male factor defect. Oligospermia is a condition of suboptimal concentration of spermatozoa in the ejaculated semen to cause successful fertilization of an ovum. Hence the management of this issue is of utmost importance in the current days. Ayurveda addresses the male factor defects under broad classification of Ashtavidhasukradushti in which oligospermia can be correlated to Ksheenasukra. A 33yr old male with 3 years of married life diagnosed with oligospermia, increased viscosity of semen and bilateral grade I varicocele and wife aged 26yrs with regular, ovulatory cycles and with apparently no reproductive issues, were treated according to Ayurvedic principles. After Deepana pachana with Pippalyasavam and Vichara snehapana with Sukumara ghritha and Mahakalyanaka ghritha, repeated Virechana with Avipathi choornam was given. Kokilaksha Kashayam and Varanadi Kashayam was given internally. Bala thailam and Pinda thailam was advised for external application. Follow up showed improvement in Seminal parameters in terms of sperm concentration, viscosity and resulted in pregnancy. The present case signifies the importance of Ayurvedic treatment in bringing a positive outcome in the field of male infertility.

KEYWORDS: Male infertility, Oligospermia, Ksheenasukra, Virechana, Mahakalyanaka ghritha.

INTRODUCTION
The first and foremost aspect of a human being is to give birth to next generation. Ayurveda, the science of life has given due importance to this process of procreation. Infertility is one of the major issues faced by couples in the modern era.

Infertility is defined as the inability to achieve pregnancy after one year of unprotected coitus1. Of all infertility cases, approximately 40-50%, the cause is male factor defect and 20% of all men exhibit suboptimal sperm parameters.

Most significant among these is reduced count, (oligospermia) reduced sperm motility (asthenospermia), abnormal morphology (teratozoospermia) or combination of these.

According to WHO, sperm concentration below 15 million sperm/ml is termed as oligospermia. International classification of disease categorization defines sperm concentration below 20 million sperm/ml as oligospermia.

In Ayurveda, the essential factors for conception are mentioned as Ritu (reproductive period) Kshetra (female reproductive tract) Ambu (nutritional factors) and Beeja (sperm & ovum)[2]. Any abnormality or malformation of any of these has a negative effect on the fertility outcome. Oligospermia is found to have dose resemblance with Shukrakshaya or Ksheenasukra, one of the Ashtavidhasukradushti mentioned in the classics[3].

There is qualitative and quantitative abnormality in Shukra, leading to its Dushti due to indulge in faulty dietics, various traumatic & psychological factors and chronic debilitating illness.[4] Ksheenasukra, caused due to vitiation of both Vata and Pitta dosha[5] is managed by using Vajeekarana dravas which are Sukrajanaka and Sukrapravarthaka in nature and have Dhatuvridhikara property. The increased pus cells and the abnormal viscosity of the semen report is suggestive of features of Sukradushti.

Also the patient is having Grade I varicocele which causes retention of excess Raktha in tortuous veins. As a result there is increased transmission of
Ushnaguna to the Sukradhatu, declining its formation and quality as Sukra is a Soumyapradhana dhatu.

Case Report

A couple with c/o inability to beget a child even after a married life of 3 yrs, having unprotected sexual life, attended OPD of GAVCH, W & C Poojapura on 7.10.19. On detailed evaluation of the case, the semen analysis of the male partner aged 33yrs dated on 5.10.19 revealed ejaculated volume 2ml, decreased sperm count of 6.2 million/ml, sperm motility rate of 6%. The sample volume had abnormal viscosity, with liquefaction time of 2hrs, and showed 6-8/hpf pus cells.

Female partner aged 26yrs, reported regular menstrual cycle and did not have any relevant past medical h/o that might affect her fertility status.

On physical examination, the male patient had bilaterally descended testes of normal size and consistency. Palpable tortous veins were visible in both testes, suggestive of Grade I varicocele confirmed later by scrotum Doppler. Prostrate was normal to palpation. Other general physical examination was non-significant.

Based on the clinical history, physical and lab examination, the case was provisionally diagnosed as Oligospermia with grade I varicocele. From Ayurvedic perspective the same can be equated with Ksheenasukra, one among the Ashtavidha Shukradushti and the following treatment protocol was adopted.

Initially Deepanapachana was done with Pippalyasavam 20ml bd for 5 days. Then Sukumara ghritha was given as Vicharana snehapana in dose of 20gm bd before food for a period of 10 days followed by Virechanam with Avipathi choornam 25g with honey in early morning. Then Varanadi kashayam tablet 2-0-2 before food was given for 2 months and Kokilaksha kashayam 90ml bd before food and Mahakalyanaka ghritham 5g bd before food was given for a period of 3 months. External application with Pinda thailam and Bala thailam in equal proportion was advised especially over the genitals. The patient was advised to do Virechana with Avipathi choornam once in every three weeks.

The following diet and regimens were advised
- Include wheat, milk, milk products, vegetables, fibre rich food and adequate fluid intake.
- Strictly avoid hot & spicy food, alcohol, tobacco & smoking.
- Avoid hot water bath, dark colored tight undergarments, long bike rides.
- Application of cold packs over genitals for short duration.

The follow up semen analysis dated 05.12.19 showed ejaculated volume of 3.5ml, with sperm count 40 million/ml liquefaction time more than 1 hr and normal viscosity. The sample had 20% actively motile sperms and morphologically 20% were normal.

As there is significant progress, the patient was advised to follow the same protocol further. The patient's wife had her LMP on 26.12.19 and she tested positive for UPT on 02.02.20. She consulted an obstetrician and underwent a scan, which revealed SLIUF of 6W 0 Days on 11.02.20 with EDD. 1.10.20. She had an uneventful antenatal period and delivered a male baby of 3.5kg by LSCS on 22.09.2020.

| Diet | Mixed |
|------|-------|
| Bowel | Constipated |
| Appetite | Good |
| Micturition | Normal |
| Sleep | Reduced |
| Allergy | Nil |
| Addiction | Occasional smoking & Alcohol consumption |

Ayurvedic Management

| Date       | Medicines                           | Dose                           | Duration               |
|------------|-------------------------------------|--------------------------------|------------------------|
| 08.10.19   | Pippalyasavam                       | 20ml-0-20ml A/F                | 3 days                 |
| 11.10.19   | Sukumara ghritha                    | 10g-0-10gm B/F                 | 10 days                |
| 22.10.19   | Virechana with Avipathi choornam    | 25g with honey                 | Once in 3 weeks for 3 months |
| 24.10.19 to 24.12.19 | Varanadi kashaya tablet | B/F 2 - 0 - 2 | 2 months               |
| 24.10.19 to 24.01.20 | Kokilaksha kashaya | 90ml bd bf | 3 months               |
|              | Mahakalyanaka ghritha               | 5g bd before food              | 3 months               |
|              | Pinda thailam + Bala thailam       | External application           | 3 months               |
DISCUSSION

Oligospermia is a condition in which there is reduction in sperm count and can be correlated with Ksheenasukra or Sukrakshaya (decreased sperm) mentioned in the classics.

The treatment mainly aims at increasing sperm count using Vajikarana dravyas (aphrodisiac drugs) which have Sukrajanana (production of sperm) and Sukrpravartaka properties (ejaculation). It also facilitates the proper functioning of Shodhana (purificatory therapy) adopted as it lowers the Pitta and brings Vatanulomana (pacify vata). It helps in removing the Srothorodha (blockage of channels) of Sukravahasrotas (sperm carrying channels). It also facilitates the proper functioning of Dhatwagni (metabolic energy) leading to formation of new Sukradhatu (semen). There is better absorption and assimilation of Oushadas (medicines) after the process of Sodhana (purificatory therapy).

Criteria for Drug Selection

- Avipathi choorna is the drug of choice for virechana (purgation) as it is the most apt one in pitta predominant condition[6].
- Mahakalyanaka ghritha and Sukumara ghritha are used for Vicharana snehapana. Mahakalyanakaghritha mentioned in the context of Unmada has infertility as one of its indications.[7] It is Deepanapachana (digestive and carminative), Vrshya (aphrodisiac) and Rasayana (rejuvenative) in nature. Majority of drugs are Tridoshasamana (pacify all the 3 humor). Virechaka (purgative) nature of drugs like Haritaki, Amalaki, Vishala danti help to remove Srothorodha. It causes regulation of Dhatwagni and Bhutagni (metabolic energy) thus correcting the cellular metabolism, resulting in proper formation of Uttarotara dhatus (succeeding tissues) ultimately the Sukradhatu.
- Sukumara ghritha is Vatapitta samana (pacify Vata and Pitta humor) in nature. The drugs used have Sophahara (reducing oedema) Mutra-virechaneeya (diuretic), Raktaasodaka (blood purifier) properties. Dasamula used as Kashaya Dravya (decction) is best Vatasamaka (pacify Vata). Trina panchamula and drugs like Ashwagandha, Satavari, Payas, Ksheera and Guda are Brimhana (nourishing) and have Sukravardhana property (increasing semen). Erandathaila is best for Vatanulomana (pacify Vata) and has Virechana (purgation) property.[8]
- Ghritha itself is Madhurarasa (sweet in taste), Brimhana (nourishing), Yogavahi (catalystic) Agnideepaka (carminative) and Vatapitta samana (pacify Vata and Pitta) in nature.
- Varanadi Kashayam due its Kapha medogha (decrease Kapha humor and body fat) properties helps in reducing inflammation & promotes cellular metabolism.
- Kokilaksha is a rejuvenating drug, considered good for men. It has property of increasing Shukra (semen) and helps in managing erectile dysfunction. Also due to its aphrodisiac property, improves sexual stamina. Kokilaksha is Vatapittahara (pacify Vata and Pitta), Soothahara (anti-inflammatory) and Mutrala (diuretic) Amritha is Raktaasodaka (blood purifier) and Dahaprashamana (pacify heat). Pippali is Kaphavatghna, (pacify Vata and Pitta) Soothahara, (anti inflammatory) Mutrala (diuretic) and Rakthashodhaha[9] (blood purifier). These properties of the drugs, aids the yoga in managing the symptoms of varicocele.
- Pinda thailam and Bala thaila abhyangam.

Abhyanga (oil massage) involves applying Taila or Snigdha dravya (unctuous substance) on any part or whole body, in particular directions, with strokes applying optimum pressure[10,11]. Pindathaila is Pitta samana (pacify Pitta humor) and Balathaila is Sarvavatvakanarut (pacify all Vata disorders)[12]. Rubbing & friction involved in Abhyanga (oil massage) helps in dilatation of superficial blood vessels, improving venous blood flow and helps in reducing symptoms of varicocele. Pindathaila due to its Sheeta guna (cold in nature) helps in reducing scrotal temperature aiding in Sukra (semen) formation.

CONCLUSION

Infertility is becoming one of the major health concern in the present day life. Male factor defect accounts for a large proportion in such couples, of which oligospermia is the leading cause in about 20-30% Oligospermia may be multifactorial and an integrated approach through Ayurvedic medication along with dietary and lifestyle modification is found to achieve tremendous result as in this case. Proper Sodhana and Samana therapies helps in removing Srototoro, pacify the aggravated Doshas and promote the process of Sukrotaltha leading formation of Uttama shukra dhatu which results in conception.

ACKNOWLEDGEMENT

We would like to express our gratitude towards Dr Anila M, Assistant Professor, Dept of Prasutitantra and Streeroga, Govt. Ayurveda College, Thiruvananthapuram for her support.
REFERENCES

1. Charis D. Meletis, Jason Barkar,-Natural ways to Enhance Male Infertility, alternative and Complementary Therapies, February 2004, issue 10(1) page no. 22-27.

2. Srikanthamurthy K. R., Sushrut samhita vol-1, edition 2004, Chaukhamba orientalia Varanasi, Sharirsthana, Chapter 2, Verse 33, Page 26.

3. Yadavji Trikamji, Editor charak samhita of Agnivesha Chikitsasthan: Reprint Ed. Varanasi: Chaukhambha Prakashan, 2011, Chapter 30, verse 154.p.641.

4. Agnivesha, Charaka, Charaka Samhita with Ayurvedadipika commentary of Chakrapanidatta, edited by Vaidya Yadavji Acharya, published by Nirmaya Sagar press, Bombay, 1941, Chikitsasthana 30/135-137; 640.

5. Vaidya Jadavaji Trikamaji Acharya, Sushruta Samhita Sharitra Sthana, Chaukhamba Surbharati Prakashana, Varanasi, Reprint 2008, Verse No. 2/4.

6. Vagbhata, Ashtanga Hridayam, with Sarvangasundara of Arunadatta and Ayurveda Rasayana Tika of Hemadri, Chaukhambha Orientalia, Varanasi, 2011, Pp: 743.

7. Madhavakara (2000) Madhava Indiana, 3rd Ed, Translated by Prof.K.R.Srikanta Murthy, Chaukhambha orientalia, 71.

8. Sahasrayogam, Sujanapriya vyakya, edited by K.V. Krishnan Vaidyan and P.Gopala Pillai, Vidyarambam Publishers, Pp 544, Pp.367.

9. Sharma Priyavratta, Dravyaguna Vijyaana, second volume, Chaukhamba Bharti Academy, Varanasi, 13 the edition 1991.

10. Raja Radhakantdev, Shabdhalakpadrama volume. III Varanasi: Chaukhambha Pratishthana; 1984, 641p.

11. Parimala IC. Sankrita English Dictionary. Pandit Publication; 2011, 114p.

12. Shastri A. Susrutha Samhita Vol1 Varanasi: Chaukhambha Surbharati Prakashana; 2008, 75p.

Cite this article as:
Jiji V, Priyanka R, Asha ST, Asha Sreedhar. Ayurvedic Management of Male Infertility Due to Oligospermia and Varicocele: A Case Study. International Journal of Ayurveda and Pharma Research. 2020;8(12):11-14.

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

*Address for correspondence
Dr. Jiji V
P.G. Scholar
Dept. of Prasutitantra and Streeroga, Govt. Ayurveda College, Thiruvananthapuram, Kerala, India.
Email: jijikrishnan74@gmail.com

Disclaimer: IJAPR is solely owned by Mahadev Publications - dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR 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 IJAPR editor or editorial board members.