A Single Case Study on Successful Ayurvedic Management of a male secondary infertility (Rasa Pradoshaj Klaibya)

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ABSTRACT: Single case study illustrated with Ayurveda therapeutic intervention of Male secondary infertility. 38 years old male patient was suffering with unable to have a child since 14-16 months associated with Lumbar pain (Kati Shool), Irregular & hard stools (Mala Vibandh) & General debility (Daurbalya) since 6 months. Case was diagnosed as Rasa Pradoshaj Klaibya resulting from injudicious use of food items, based on etiological sign and symptoms. Treatment is given accordingly, with Langhan, Pachan, Anuloman drugs orally in first stage and Balya, Bruhan & Vrshya drugs in second stage. Medicines used were Vaishwanar, Erand Bhrisht Haritaki, Shilapravang, all in tablet form & Dashmool Kwath in 2 different combinations. No any external management done for Kati Shool. After the treatment of 45 days, patient not only got relief in all of his complaints and also UPT of his wife came positive. His semen analysis report showed changes as Total motile sperm increased from 3% to 52%, Progressive motile sperm (million/ml) increased from 0.1 M/ml to 24.96 M/ml and Sperm vitality live sperm goes 71%, which earlier was 35% only.

Key Words: Secondary Male infertility, Rasa Pradoshaj Klaibya, Shukra Kshay, Vrishya, Vata pacification Chikitsa

INTRODUCTION: The Ayurveda tripod of life Vata, Pitta and Kapha though present throughout the body, their presence is more striking at specific organ. Any imbalance in these Doshas will lead to its vitiation and if the weak site of the body gets affected by vitiated Dosha then it results in manifestation of diseases. The seven Dhatu concepts from Ayurveda are also important. Amongst the linier order of Dhatu, Shukra Dhatu is seventh one. Shukra Dhatu is important for cell regeneration & Garbh Utpadan (conceiving child). Kapha or Shleshma is interrelated with Shukra as Ashrya-Ashrayi Bhava. The Dhatu Khshaavstha leads to progressive decreasing in Kapha & increase in Vata Dosha. Secondary infertility, about one-third of cases originate in women and about one-third originate in men. In the remaining one-third, the cause is due to a combination of factors or isn’t known. Secondary male infertility according to Ayurveda comes under the two headings. First is Rasa Pradoshaj Klaibya and other is Shukra Pradoshaj Klaibya. Causes, clinical symptoms, prognosis and treatment vary in both of the conditions. In Rasa Pradoshaj Klaibya, firstly we have to give Langhan (Deepan, Pachan & Anuloman) and then Vrishyal Vajikaran/ Shukra Vardhak treatment.
CASE DETAILS:

A 38 year male patient came up with complaints was as follows- Chief compliant was unable to conceive a child since 14 to 16 months. Associated symptoms were Lumbar pain (Kati Shool), Irregular & hard stools (Mala Vibandh) & General debility (Daurbalya). Patient was with no other disease conditions like cardiac, renal, hypertension, etc. Patient was M. Pharm by education & was doing a job in Pharmacy Company. The patient is non-alcoholic and none diabetic. In order to understand the case more deeply, the patient was asked more questions.

After taking detailed history, it was revealed that patient has taken one of the so called renowned company’s herbal shakes for weight loss and hypercholesterolemia, for almost 3 months. At the time when patient started herbal shakes, his weight was 90 kg & his height was 170 cm. So his BMI comes 31.14 i.e. he was Overweight. Patient didn’t have cholesterol report while he visited Ayurved consultant. As patient reported, after 3 months he reduced cholesterol levels and weight (After 3 months, weight was 79.8 kg, so BMI came down to 27.61) but patient started to feel weak, lumbar pain started, stools became irregular and hard. In spite of trying for second child, couple didn’t succeed so they done all reports. His wife had done USG abdomen with pelvis, ovulation study, hysterosalpingography, thyroid function test. All reports were normal.

Patient has done semen analysis. Report was showing following things

Table no.1

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Before treatment (on 26/12/20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total motile sperm %</td>
<td>3%</td>
</tr>
<tr>
<td>Total immotile sperm %</td>
<td>97%</td>
</tr>
<tr>
<td>Progressive motile sperm (million/ml)</td>
<td>0.1 M/ml</td>
</tr>
<tr>
<td>Sperm vitality live sperm %</td>
<td>35%</td>
</tr>
<tr>
<td>Sperm vitality dead sperm %</td>
<td>65%</td>
</tr>
</tbody>
</table>
No any family history of Hypertension, Diabetes, Asthma, Tuberculosis, Cardiac diseases etc seen.

Patient was taking his lunch around 1-2 pm and dinner late around 9.30 to 10 pm. He has Mala Pravruti once in a day, but most of the time, have to give pressure while defecation, Jivha- Saam, Kshuda-Visham. Based on above condition we conclude that injudicious use of weight loss shakes done reduction not only in med Dhatu but also in Shukra Dhatu. It ultimately leads to Kapha Kshay, Rasa Dushti, Shukra Dushti and Vata vitiation also.

While diagnosing the disease we have to focus on Rog Marga, Doshavastha, Dhatu Kshay Vruddhi, Strotas, Dhatupradosha etc. Acharaya Charaka mentions Klaibya as diseases of Rasa Pradoshaj & Shukra Pradoshaj Vyadhi. Vata can be vitiated by two ways. First is Dhatu Kshay Janya Vata Prakop (Vata vitiation due to tissue depletion) and other is Marg Avarodh Janya Vata Prakop (Avarana Janya) (Vata vitiation due to blockages in pathways). Here first type of Vata vitiation seen. Khudha (Appetite) & Mala Pravrutti (Bowl habit) suggests that patient condition was Saam.

As patient was overweight previously & was having hyperlipidemia, status of his Rasa Dhatu was not so good. (Kha Vaigunya) As Acharya Sushrut clearly opines that Sthaulya & Karshya are Rasa Dhatu born diseases.

The case is than diagnosed as secondary infertility due to low semen motility. Patient was told to do IVF procedure by gynaecologist. The couple wants baby by natural way so they visited Ayurved consultant, with above chief complaints.
In Ayurved view, after considering the symptoms and the conditions of the patient it may be concluded that injudicious use of weight loss shakes (dietary part) resulted in Dushti of Rasa Dhatu. It further leads in reduction not only in Med Dhatu but also in Shukra Dhatu by Kedari Kulya Nyay. Hence it is a Rasa Pradoshaj Klaibya.

**Disease review- Male secondary infertility**

Secondary infertility is similar to other types of infertility and shares many of the same signs. However, in secondary infertility one is unable to conceive or carry a baby to full-term after having a previous successful pregnancy. Infertility can be caused by either the man or woman.

**Definition:-** Secondary infertility is the inability to conceive a child or carry a pregnancy to full term after previously giving birth. To classify as secondary infertility, the previous birth must have occurred without help from fertility medications or treatments, like in vitro fertilization. Secondary infertility typically is diagnosed after trying unsuccessfully to conceive for six months to a year.\(^{viii}\)

**Prevalence:-** Secondary infertility is just as common as primary infertility. Secondary infertility can be traced to either partner or both partners. About one-third of cases originate in women and about one-third originate in men. In the remaining one-third, the cause is due to a combination of factors or isn’t known.

**Causes of secondary infertility in men** \(^{ix}\)

1) Reduced testosterone level - Testosterone plays a key role in sperm production. Testosterone levels can decline due to aging, injury to urinary or genital organs, or certain medical conditions like Genital infections, Thyroid diseases, Diabetes, Tuberculosis, Mumps, Smallpox, Blood diseases, Benign tumors, Emotional stress, Myocardial infarction, Coma, Stroke, Respiratory failure, Congestive heart failure, Burns, Sepsis, which is a potentially life-threatening reaction to infection.

2) Testicular varicocele - This is an enlargement of veins in the scrotum, or the sack of skin encasing the testicles. This condition is a common cause of low sperm production and infertility in men. About 30% of infertile men have testicular varicocele.

3) Poor-quality semen - Semen is the fluid that carries sperm. After age 40, the quality of semen tends to decline.

4) Prostate enlargement - This can lower sperm count and hinder a normal ejaculation (the discharge of semen from the body).

5) Prostate removal - The prostate may be removed due to cancer or other conditions. Removal of the prostate can cause semen to flow backward.

6) Certain drugs affect sperm count and quality - These drugs include some antibiotics and medication that treat high blood pressure. Sperm quality can also be affected by treatments for the conditions like Prostate cancer, Enlarged prostate, Fungal infections, Stomach acid, Urinary tract infections, Ulcerative colitis, Arthritis, Gout, Pain, Cancers, Seizures, Schizophrenia.

7) Use of certain commercial sexual lubricants that are toxic to sperm - Nontoxic, natural lubricants include peanut, safflower and vegetable oils, raw egg white and petroleum jelly.

8) Exposure to certain chemicals - Being exposed to pesticides, lead, industrial chemicals and excessive heat can all impact a man’s fertility.

9) Excessive weight gain - This can decrease testosterone levels and increase oestrogen levels.

10) Addiction: - alcohol abuse, overuse of nicotine products impairs the sperm production
Treatment options for men infertility include:

i. **Intrauterine insemination (IUI)** is a procedure in which sperm is inserted directly into a woman's uterus, often used when men have low sperm count or poor sperm quality (this is also an option for women with unreactive cervical mucus.

ii. **Testicular surgery** can repair testicular varicocele, a condition that can affect sperm quality and count.

iii. **Supplements** like antioxidant and anti-aging supplements can increase fertility in men while drug treatment can improve semen quality.

iv. Lifestyle-related infertility, such as infertility caused by excess weight gain, can be reversed using weight management strategies.

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*Rasa Pradoshaj Klaibya:*

*Ahar Rasa* nourishes *Rasa*, *Rakta*, *Mamsa*, *Meda*, *Asthi*, *Majja*, *Shukra* and *Oja*, basic materials of five sense organs known as “Dhatu Prasad”.

Acharya Charaka has mentioned that these materials like *Mala*, *Mutra*, *Sweda*, *Vata*, *Pitta* and *Kapha* are formed as waste products. But they are not considered as waste product these all are help to maintain the equilibrium of *Dhatu’s*. The *Ahar Rasa* nourishes *Rasa*, *Rakta*, *Mamsa*, *Meda*, *Asthi*, *Majja*, *Shukra* and *Oja*, basic materials of five sense organs known as “Dhatu Prasad”. Acharya Charaka mentioned about the *Karma* of these three *Dosha’s* as like *Vata* resides in *Pakvashaya* but it will work on all five types of *Vata*. So, the vitiated *Vata Dosha* from *Pakvashaya* will Vitiate *Vata Dosha* all over the body. As per the *Dhatu Purinaman Poshan Nyaya* the *Ahar Rasa* if get vitiated it will give rise to vitiated *Dhatu*.

In this patient, *Rasa* was vitiated with *Vata Dosha*. So, According to *Kedari Kulya Nyaya* such vitiated *Rasa* when travelled through the *Srotasas*, it doesn’t nourish *Dhatu* properly and hence *Shukra Dhatu Kshay* occurred not only quantitatively but also qualitatively.

The diseases condition can be understood with all 5 types of *Vata* vitiation. As *Saman & Apan* were disturbed, patient was suffering from constipation, lumbar back pain. *Udan Vata* is responsible for *Bala* of patient, when it gets vitiated, patient feels *Daurbalya*. *Vata* as a whole is responsible for *Gati* (Motion/Movement) of anything within the body. As *Vata* was vitiated so as sperm motility was also hampered. *Vata* vitiated *Rasa* depletes all *Dhatus* including *Shukra Dhatu* also, resulting in decreased sperm count.
Management protocol according to Ayurveda

*Rasavah Srotasas* treatment principle is Langhan.\(^{xvii}\) Shukravah Srotasa Chikitsa should be Madhur & Tikt Rasa medicines, Vrishyal Vajikaran/Shukra Vardhak treatment.\(^{xviii}\) So the patient was treated with Langhan (Deepan, Pachan, Anuloman) in first stage & Bruhan, Shukra Dhatu Vardhak & Vata Shamak in next stage.

Internal medicines for first 15 days used were

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Medicine</th>
<th>Dose of Medicine</th>
<th>Time of administration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Vaishwanar Vati</td>
<td>250 mg-3 tab</td>
<td>3 times- Morning afternoon &amp; evening 1 hr before food with water</td>
</tr>
<tr>
<td>2</td>
<td>Erand Bhrisht Haritaki tab</td>
<td>500 mg-2 tab</td>
<td>3 times- morning afternoon &amp; evening 1 hr before food with water</td>
</tr>
</tbody>
</table>

After 15 days, treatment revised, for 30 days as follows

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Medicine</th>
<th>Dose of Medicine</th>
<th>Time of administration</th>
</tr>
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<tbody>
<tr>
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<td>500 mg-2 tab</td>
<td>3 times- morning afternoon &amp; evening 1 hr before food with water</td>
</tr>
<tr>
<td>3</td>
<td>Shilapravang Tab</td>
<td>2 tab</td>
<td>2 times- morning &amp; evening 1 hr before food with milk</td>
</tr>
<tr>
<td>4</td>
<td>Dashmool Kwath</td>
<td>20 ml</td>
<td>2 times- morning &amp; evening empty stomach</td>
</tr>
</tbody>
</table>

Here Langhan work as Deepan, Pachan in Koshtha, at Amashaya for Kledak Kapha and Saman Vata. Increased Agni will pacify vitiated Vata Dosha. After that, Bruhan will increase all Dhatu including Shukra Dhatu.

*Vaishwanar* is a combination of Sunthi, Ajvayan, Saindhav & Erand Bhrisht Haritaki having qualities like Laghu, Snigdha, Teekshna and Ushna in Veerya it acts as Agnidipak & Vata Shamak. It improves digestive strength, balances the Vata Dosha.

*Erand Bhrisht Haritaki* can prepare from Haritaki and castor oil useful for Langhan, Singdh Anuloman etc. Haritaki act as Deepan, Pachan, Rochan, Virechanopaga and helps in Vata Anuloman, Shoolhara-reduces the pain. Properties of castor oil as Snigdha, Ushna, Anuloman, Vrishya help in reducing Shool, balances Vata & promotes Dhatu Vardhan process.

*Shilapravang* Tablet is a proprietory medicine of Shri dhutpapeshwar company which contains Shuddha Shilajit 40 mg, Pravala Bhasma 20 mg, Vanga Bhasma 20 mg, Suvarnamakshik Bhasma 20 mg, Guduchi Satva 20 mg, Ashwagandha 60 mg, Shatavari 15 mg, Gokshur 15 mg, Balamoola 15 mg, Amalaki 10
mg, Akarkarab 10 mg, Jatiphal 10 mg, Karpoor 5 mg, Latakasturi Beej 20 mg, Kraunch Beej 90 mg, Makardhwaj 10mg, Suvarn Bhasm 1 mg, Mauktik Pishri 1 mg as active ingredients. This helps in increasing all Dhatu including Shukra.\textsuperscript{xx} Thus ultimately increasing vigour & vitality.

Dashamul Kwath is a combination of ten herbs namely Bilva, Agnimanth, Shyonyak, Kashmari, Patala, Bruhati, Kantakari, Shalparni, Prishniparni, & Gokshur. Dashmul is Tridosh Shamak, specifically best for Vata. It is having Snigdha Dhatu Vardhak properties helping in improving strength of the body.\textsuperscript{xx}

**OBSERVATION & RESULTS**

During the treatment of around forty five days the patient start experience gradual relief in lumbar pain & general weakness from fifth day of treatment begins and got full relief till the end of forty fifth days. On day of examination treatment started with Vaishwanar Vati (250 mg) 3 tab 3 times before food & Erand Bhrisht Haritaki tab (500 mg) 2 tab 3 times before food. The semen report with all parameters is tabulated as mention in table no. 2

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Before treatment (26/12/20)</th>
<th>After treatment (16/09/21)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total motile sperm %</td>
<td>3%</td>
<td>52%</td>
</tr>
<tr>
<td>Total immobile sperm %</td>
<td>97%</td>
<td>38%</td>
</tr>
<tr>
<td>Progressive motile sperm (million/ml)</td>
<td>0.1 M/ml</td>
<td>24.96 M/ml</td>
</tr>
<tr>
<td>Sperm vitality live sperm %</td>
<td>35 %</td>
<td>71 %</td>
</tr>
<tr>
<td>Sperm vitality dead sperm %</td>
<td>65 %</td>
<td>29 %</td>
</tr>
</tbody>
</table>
Patient advised to follow some Pathya that includes daily used of luke-warm water, for lunch dinner and breakfast advised to consume Mudga soup/Shobhanjan Sheng soup (drumstick soup)/ Mudga Chaval Khichadi/ Upamaa/Daliya. Pomegranates, Papaya in fruits category, allowed taking green/ black tea blended with Suntha+Tulsi+Kaalimiri and sugar as per taste. Counsel to avoid during day sleep/ Ratri Jagran/ Pishtann Padarth/ strictly avoid eating dry fruits, excessive exertion avoided. Suggest some mild exercised like walking with normal speed.

**DISCUSSION**

Because Rasa Dhatu will travel around the whole body through Hrudya via Vyan Vata. The treatment modalities used in above said patient is mainly aim to pacify Vata Dosha and improves the quantity & quality of Rasa Dhatu so that it can start nourishment of all Dhatus again.

Vata is chief component in all the symptoms of the patient. Vata vitiation can be of 2 types Saam & Niram. In the patient, Vata vitiation was of Saam type. So Langhan (Deepan, Pachan Anuloman) was line of treatment selected in the first stage of disease.\(^{xxi}\) Vaishwanar Tablet will do Deepan of Agni, helps in Pachan of accumulated Aam\(^{xxi}\) and Erand Bhrishta Haritaki will do Vata & Mala Anuloman. Erand is Vrishya and Vatahar properties.\(^{xxi}\) Means it will helps to regenerate all Dhatus including Shukra Dhatu. After first Saam stage is over then added Dashmool Kwath will directly pacify Niram Vata. As Shilaprapvang is Balya, Bruhan & Shukra Vardhak in nature, it will improve quantity & quality of Shukra Dhatu.
So with above said treatment, the vitiated Vata Dosha present in all over the body returns to its normal form. Rasa again starts nourishing all the Dhatus including Shukra Dhatu. Hence we get improvement in patient clinically as well as in semen reports. Patient became father then afterwards, and his baby, aged 1.5 yr is healthy till date.

CONCLUSION

Disturbance in Jatharagni can lead to disturbance in quality of Rasa Dhatu. Improperly made Rasa Dhatu ultimately leads to Shukra Kshay, (through Kedari Kulya Nyay). Male secondary infertility due to low sperm count and motility can be correlated with Rasa Pradoshaj Klaibya. Langhan ( Deepan, Pachan, Anuloman) is the main line of treatment for Rasa Pradoshaj Vikar. Langhan treatment stimulates Jatharagni, pacifies Aam Dosh and ultimately leads to good quality of Rasa Dhatu. After Langhan; Vrishya & Vajikaran medicines directly works on Shukra Dhatu. Hence quantity and quality of Shukra Dhatu will be restored to normal.

LIMITATION

It is just a single case study. But based on Ayurveda conceptual study we can conclude that the Langhan (Deepan, Pachan, Anuloman) in first stage & Vrishya, Vajikaran & Vata Shamak in next stage is effective for Secondary male infertility due to low sperm count & motility (caused by improper dietary habits). To get more concisely we must have to do with large sample studies.

CONFLICT OF INTREST

None Declared

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