



**ORIGINAL RESEARCH PAPER**

**Ayurveda**

**ROLE OF AYURVEDA IN UTERINE HYPOPLASIA- A CASE STUDY**

**KEY WORDS:** Uterine Hypoplasia, Chiruvilwadi kashayam, Sukumaram ghritam, Moorchita tila tailam, Satapushpa choornam

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**ABSTRACT**

Uterine hypoplasia is when a girl is born with a uterus that is abnormally small. The condition is sometimes referred to as a hypoplastic uterus. It is a congenital disease when the uterus fails to fully develop inside the fetus. The cause of this abnormal fetal development is not yet known. Uterine hypoplasia may be one symptom of a broader condition known as Mayer-Rokitansky-Küster-Hauser (MRKH), a disorder in which the girl's uterus and vagina are absent or underdeveloped, in addition to other abnormalities(1). This is a case of hypoplastic uterus with rudimentary ovaries, who presented with primary amenorrhoea. The patient was treated with ayurvedic medications and procedures. Though spontaneous menstruation did not occur after treatment, the size of uterus and endometrial thickness were improved.

**INTRODUCTION**

Normal development of female reproductive tract involves a series of complex processes characterized by the differentiation, migration, fusion and subsequent canalization of the mullerian system. Mullerian duct anomalies are rare and usually found in 1 of 4500 female cases of primary amenorrhoea(2) and 2%-8% cases of infertile women(3) . They are undiagnosed till menarche. Mullerian duct differentiate into fallopian tubes, uterus and upper part of vagina during intrauterine phase. Any interruptions during this period can cause several malformations. These range from complete agenesis, hypoplasia and fusion defects such as unicornuate uterus with or without rudimentary horn, uterine didelphys, complete or partial bicornuate uterus and arcuate uterus (3). The exact correlation of mullerian duct anomalies as per ayurvedic classics is not possible, but there are references regarding sexual differentiation and pathologies related to it. Acharya Charaka has well explained about the bija, bija bhaga avayava and their dushti which plays a very important role in pathogenesis of disease Vandhya. All the bruhatravees also explained the yonivyapads such as Shandi and soochimukhi which have genetic origin (4).

**CASE STUDY**

A 19 year old unmarried girl came to the OPD of PNNM Ayurveda Medical College & Hospital, with complaints of failure to attain spontaneous menarche. Her birth and development were normal and her scholastic performance was good. She was evaluated by another gynecologist and was diagnosed as a case of uterine hypoplasia. Her parents were married by second degree consanguinity. On examination her secondary sexual characters were found to be normal. Her transabdominal scan was taken on 06/09/2014 in which it showed features of uterine hypoplasia with rudimentary ovaries. Her mother and sister had similar complaint. Both of them conceived after medication and delivered at pre term.

**Treatment History:**

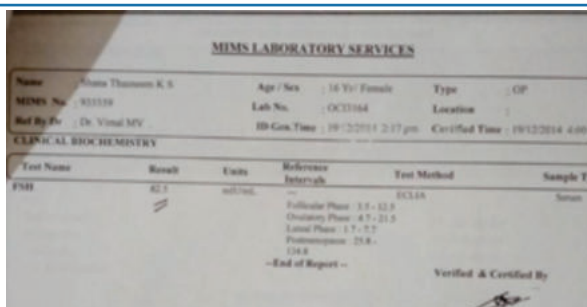
T Regesterone 5mg once daily  
T Femilon T- Metoxine 200mg

**Investigations**

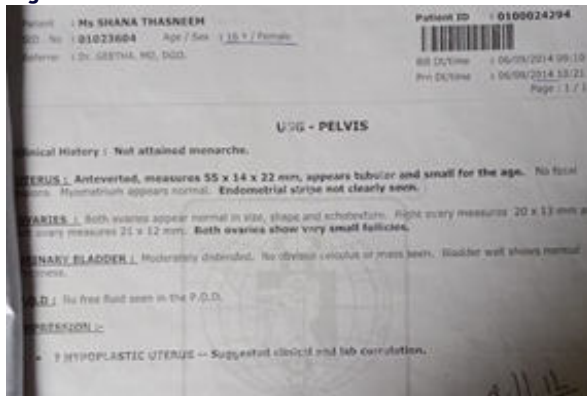
**Karyotype:** Normal female karyotype with 46 XX chromosomes

**FSH:** 82.5mIU/ml(19/12/14)

**USG (06/09/2014):** Hypo plastic Uterus (55x14x12mm), Endometrial stripe not seen, Both Ovaries show very small follicle.



**Figure 1:** Initial FSH level



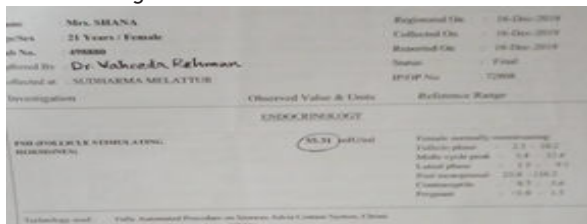
**Figure 2:** Initial USG report

**Treatments Given:**

Phase 1: sukumaram ghritam, chiruvilwadi kashayam  
Phase 2: Moorchita tila tailam as snehapanam , satapushpa choornam

**RESULTS:**

Patient did not attain periods. But certain changes were observed after the treatment. The level of FSH reduced to 55.31mIU/l (16/12/2019). The trans abdominal scan showed endometrial thickness of 3.4mm. The patient started feeling wetness of vagina.



**Figure 3:** FSH Level After Treatment

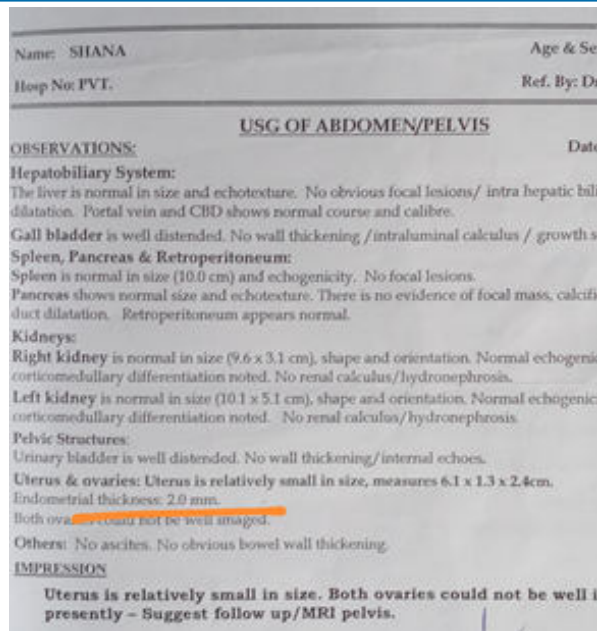


Figure 4 USG After Treatment

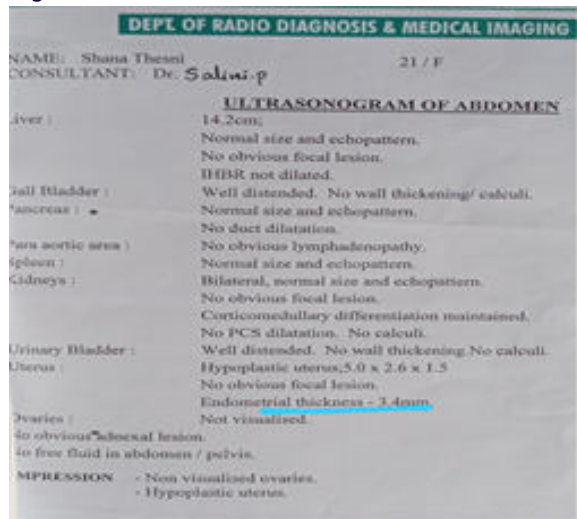


Figure 5: Follow Up Scan

**DISCUSSION:**

Organogenesis of the female reproductive system is initiated from urogenital ridges which are developed at the 5<sup>th</sup> week of gestation. Mullerian duct anomalies such as early developmental failure during 5 weeks of gestation may cause agenesis or hypoplastic uterus. Mullerian duct develops at 7 weeks of gestation. Fusion of mullerian duct and formation of uterus occurs at 10 weeks of gestation. This fusion is seen in the midline and progresses from caudal to cranial portion. The unfused parts of mullerian duct form fallopian tubes. Moreover, in the hypoplastic uterus, the organ is seen fully differentiated(5-9).

In this case, Chiruvilwadi kashayam and Sukumaram ghritam were given in the initial phase. Chiruvilwadi kashayam pacifies Vata & kapha, and corrects agni. This helps in the nourishment of utharothara dhathus. Artava is the Upadhathu of Rasadhathu. Hence proper formation of Rasa dhathu is essential for the maintenance of Artava. Chiruvilwadi kashaya thus indirectly helps in the proper formation of Artava (Both beeja roopa and dhathu roopa).

Patient was given mriduvirechana with Avipathy churnam prior to the administration of Sukumaram ghritam. Sukumaram ghritam is indicated in diseases with apana vayu

dushti. It is kaphavata hara, srotosodhaka, vata anulomaka and agnidipaka in nature. Ghrita and taila are yogavahi in property. It is extensively used in dhatukshayaja vandhyatva to improve the ovarian and endometrial functions.

The ingredients of Sukumara Ghrita, such as Shatavari (Asparagus racemosus Willd.) And Punarnava (Boerhavia diffusa L.), act as phyto-estrogens and might have enhanced the development of endometrial bed. The ingredients like Dashamoola, Aswagandha (Withania somnifera (L.) Dunal) and Eranda Taila (seed oil of Ricinus communis L.) Have best Vata-Shamaka property. Kantakari helps in increasing estradiol levels(10). Drugs like Ksheera Kakoli (Lilium polyphyllum D. Don.), Ashwagandha and Shatavari are brimhana and jeevaniya and thus helps nourishing Rasa dhathu. Other ingredients like dugdha and guda also have similar properties.

In the second phase, Moorchita tila tailam and Satapushpa churnam were given.

The drug tila is rich in fatty acids and antioxidants. The chemical constituent sesamin gets converted into enterolactone in the presence of intestinal bacteria(11). It acts as a powerful phytoestrogen. It is having madhura rasa and madhura vipaka, snigdha guna and ushna veerya. Moreover the garbhasaya sodhaka and arthavajanaka karma is appreciated in several Ayurveda classics.

The formulation Moorchita tila taila is described in Bhaishajya ratnavali under jwara chikitsa. The ingredients include Manjishtha (Rubia cordifolia), Haridra (turmeric), lodhra (symplocos racemosa), Jaladhara (Cyperus rotundus), Nalika (nelumbo nucifera), Amalaki (emblica officinalis), Triphala, Vatankura (ficus bengalensis) and hribera (Pavonia odorata). Taila moorchana is the first step of taila preparation. Moorchana has been adopted for enhancing the potency of oil and to remove the bad odour and aama dosha. Fat and water soluble active principles are extracted into the taila by this method. Out of these drugs, Manjishtha is considered as a uterine tonic which has antidopaminergic action. Lodhra has antiandrogenic property, jaladhara improves ovarian functions and nalika helps in induction of periods(8).

Satapushpa is having katu tikta rasa, laghu rooksha guna, ushna virya and madhura vipaka. It is kaphavatahara and srotosodhaka. As it is artavajanaka and garbhasaya sodhaka, it can be effectively used in a spectrum of gynaecological conditions. Its rasayana property can be utilized in treating hormonal derangements especially in women.

Though the patient did not attain periods, the following changes were observed.

S.no	Before treatment	After treatment
1	Uterine size (5.5*1.4*2.5mm)	Uterine size (6.13*2.6*2.5)
2.	Endometrial Stripes were not seen	Endometrial thickness - 3.2mm
3.	FSH: 82.4 mIU/ml	FSH: 55.31 mIU/ml
4.	Subjective symptoms: Patient was obese, no feeling of vaginal discharge	Subjective symptoms: body weight reduced up to 4kg, started experiencing vaginal discharge.

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