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Journal or Pa	ORIGINAL RESEARCH PAPER	Ayurveda
Sept. PARIPEN	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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Dr. Salini. P* Associate Professor, Department of Prasutitantra & Striroga, PNNM A Medical College, Cheruthuruthy. *Corresponding Author		Associate Professor, Department of Prasutitantra & Striroga, PNNM Ayurveda Medical College, Cheruthuruthy.*Corresponding Author
-	Uterine hypoplasia is when a girl is born with a uterus that is abnormally small. The condition is sometimes referred to	

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

ABSTRAC

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 bruhatrayees 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.

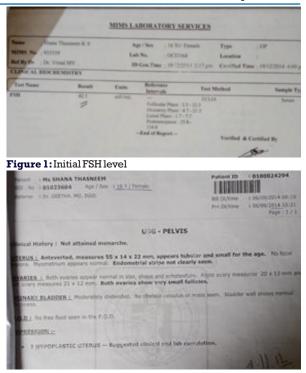


Figure 2: Initial USG report

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 55.31mlu/l (16/12/2019).The trans abdominal scan showed endometrial thickness of 3.4mm. The patient started feeling wetness of vagina.

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Figure 3: FSH Level After Treatment

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28

PARIPEX - INDIAN JOURNAL OF RESEARCH | Volume - 10 | Issue - 06 | June - 2021 | PRINT ISSN No. 2250 - 1991 | DOI : 10.36106/paripex

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Name: SHANA	Age & Se
Hosp Not PVT.	Ref. By: Di

OBSERVATIONS:

Hepatobiliary System:

The liver is normal in size and echotexture. No obvious focal lesions/ intra hepatic bil diatation. Portal yein and CBD shows normal course and calibre.

USG OF ABDOMEN/PELVIS

Gall bladder is well distended. No wall thickening / intraluminal calculus / growth s

Spleen, Pancreas & Retroperitoneum:

Spleen is normal in size (10.0 cm) and echogenicity. No focal lesions. Pancreas shows normal size and echotecture. There is no evidence of focal mass, calcifi duct dilatation. Retroperitoneum appears normal.

Kidneys:

Right kidney is normal in size (9.6 x 3.1 cm), shape and orientation. Normal echogeni corticomedullary differentiation noted. No renal calculus/hydronephrosis.

Left kidney is normal in size (10.1 x 5.1 cm), shape and orientation. Normal echogenic corticomedullary differentiation noted. No renal calculos/hydronephrosis.

Pelvic Structures:

Urinary bladder is well distended. No wall thickening/internal echoes.

Uterus & ovaries: Uterus is relatively small in size, measures 6.1 x 1.3 x 2.4cm. Endometrial thickness: 2.0 mm.

Otherst: No ascites. No obvious bowel wall thickening. IMPRESSION

Uterus is relatively small in size. Both ovaries could not be well i presently - Suggest follow up/MRI pelvis.

Figure 4 USG After Treatment

DEPT. OF RADIO DIAGNOSIS & MEDICAL IMAGING

21/F

NAMEL	Shana	Theseil	
CONSUL	TANTI	Dr. Salvaira	

dver (ULTRASONOGRAM OF ABDOMEN 14.2cm; Normal size and echopamen. No obvious focal lexion.
	THBR not dilated.
ioll Bladder	Well distended. No wall thickening/ calculi.
Anoreas 1 +	Normal size and schopattern.
	No doct dilatation.
VALUE INCIDENT AND ADDRESS OF THE OWNER OF THE OWNER OF THE OWNER OF THE OWNER	No obvious lymphadenopathy.
ipboon 1	Normal size and echopattern.
Cidneys :	Bilateral, normal size and echopatiern.
	No obvious focal lesion.
	Corticomedullary differentiation maintained.
	No PCS dilatation. No calculi.
Urinary Bladder	Well distended. No wall thickening No calculi
Ubertan (Hypoplastic uterus;5.0 x 2.6 x 1.5
	No obvious focal lesion.
	Endometrial thickness - 3.4mm,
Svaries :	Not visualized
40 obvious ade	exal heaton.
	abdomen / pelvis.
MPRESSION.	Non visualized ovaries. Hypoplastic aterus.

Figure 5: Follow Up Scan

DISCUSSION:

Organogenesis of the female reproductive system is initiated from urogenital ridges which are developed at the 5th 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 progresss 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 maintanence 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

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

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