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A Clinical Case Report of Hypoplastic Uterus and Ovaries and it's Management in Ayurveda

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ABSTRACT

Contrary to popular belief, hypoplastic uterus and ovaries are not just a rare occurrence, but a significant pathology that affects a small, yet meaningful percentage of women. In fact, this condition is present in less than 5% of the female population, making it a condition that deserves greater attention and understanding.

The implications of this condition are far-reaching, as it can have a profound impact on a woman's reproductive health and overall well-being. At birth, the length of the uterus in these cases is no more than 3cm, a stark contrast to the typical 7cm length that should be reached by the end of puberty. Similarly, the cervix length is often limited to just 2.5cm¹. This underdevelopment of the reproductive organs can lead to a host of challenges, from difficulties with menstruation and fertility to increased risks of complications during pregnancy and childbirth. It is crucial for healthcare providers and women alike to be aware of this condition, as early diagnosis and appropriate management can make a significant difference in the quality of life for those affected. By understanding the prevalence and significance of hypoplastic uterus/ovaries, we can work towards improving the support and resources available for those living with this condition. Through increased awareness and a commitment to research, we can empower women to take control of their reproductive health and overcome the unique challenges they may face.

The patient has experienced a remarkable improvement in her overall health and well-being since beginning treatment. She has regained her strength, her skin has a renewed luster, and her physical appearance is now moderately built, indicating a healthier state. Notably, the patient has gained weight, a positive sign of progress.

Furthermore, the patient's troubling symptoms, such as insomnia, indigestion, and stress, have been significantly relieved. This improvement in her general condition is further supported by the fact that she has experienced a return of her menstrual cycle, with scanty menses occurring three times since the start of the treatment.

These tangible results demonstrate the effectiveness of the treatment plan and the patient's positive response to it. The patient's satisfaction with the progress made is a testament to the care and attention provided, and it underscores the importance of a comprehensive approach

Key Words *Hypoplastic Uterus, Hypoplastic Ovaries, Uterine Hypoplasia, Ovarian Hypoplasia, Underdeveloped Uterus, Underdeveloped Ovaries*

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INTRODUCTION

Hypoplastic Uterus or Naïve Uterus or Infantile Uterus²/Ovaries are a rare pathology i.e. in less than 5% of women where the organs are underdeveloped. At birth the length of the Uterus is no more than 3cm, it gradually increases in size, and by the end of puberty it should reach by 7cms. The length of the cervix is 2.5cms normally. Lower rates in these measurements is a pathological condition known as hypoplasia.

Hypoplasia can be congenital or acquired. In our clinical case, the patient has acquired a type of hypoplasia. The main cause of the acquired hypoplasia is hormonal disturbance.

Hypoplastic Uterus is also called as naïve uterus or infantile uterus, as it is a reproductive disorder characterized by hypoplasia. It is usually due to hypogonadism and may be treated using estrogen or progestogens in puberty³.

Symptoms – absence or irregular painful menses, infertility, miscarriage or preterm delivery, pelvic pain or discomfort⁴.

In Ayurveda this condition can be diagnosed as Garbhashayagata Kshayaja vyadhi. Here the main cause behind this condition was diagnosed as stress, excessive physical work and lack of nutrition. So, we have given Vatahara and Brumhana chikitsa to the patient along with satvavajaya chikitsa like proper counseling was done.

Patient had tried other methods of therapy and she was told that her condition is not treatable and she was tired of taking up treatment and at

last, she came to our hospital with the hope of getting treated.

There are three types of hypoplasia⁵, viz.,

1. Simple Hypoplasia – In this the form of the Uterus is normal but the size is small.
2. Elongated Hypoplasia – In this type of hypoplasia, the fundus of the Uterus is normal but the length differs, either its normal or more than the normal length of the Uterus.
3. Malformative Hypoplasia – In this type the Uterus is arcuate, ‘T’ or ‘Y’ shaped.

CASE REPORT

A case study was done to assess the role of Ayurveda in a rare condition of Hypoplastic Ovaries/Uterus. A study was conducted on a single case as the incidence of Hypoplastic Uterus/ovaries is very low.

Chief complaints:

A 31-year-old married nulliparous female with 6 years of married life visited our hospital as she was anxious to conceive. Her complaints were amenorrhea for 1 year, indigestion, stress, low back ache, Insomnia, anxiety, vaginal dryness, and dyspareunia.

Past History: The patient was apparently normal since her childhood and menarche. She got married at the age of 24 years and for the next 6 years of successful married life she was unable to produce a progeny and she was diagnosed with hypoplastic Uterus and ovarian agenesis as acquired one. The patient has a history of irregular and scanty menses since marriage until

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last year and she underwent a miscarriage in 2nd month of pregnancy within a year of marriage. She was taking contemporary medicines for 2 to 3 years and tried other systems of medicines too. She tried all types of medications but nothing was fruitful. She came to our hospital with the hope of getting back her reproductive organs normal and trying to get conceived.

Family History: Nothing specific

Menstrual History: Menarche at 14 Years, LMP – 1 year

History of Past Illness: None

Any other illness: She is a known case of Hypothyroidism and was not on any medications. She is not a known case of DM / HTN / or any other co-morbidities

General Examination:

Blood Pressure – 131/84 mm of Hg.

Pulse – 71 bpm

Astastana pariksha

Nadi= Manda

Mala= Once/ day, prakruta

Mutra= 4-5 times/day, prakruta

Jiwaha= lipta

Shabda= prakruta

Sparsha= prakruta

Druk= Prakruta

Akruti= Uttama

CVS – S1 S2 Heard – No murmurs heard

CNS – NAD

RS – Clear, No wheezing / crepitation

P/A – Soft, Non Tender

Local Examination:

Per Vaginal examination revealed no specific findings

Investigations

Investigations were done on multiple dates which involved ultrasonography, MRI and other blood investigations. The detailed list of investigations are mentioned in Table No. 1

Table 1 List of investigations done on different dates

| Sl. No. | Date | Name of the test | Result / Impression |
|---------|------------|---|--|
| 1 | 16.04.2019 | TSH | 2.44 µIU/ml |
| | | Prolactin | 16.60 ng/ml |
| 2 | 02.12.2019 | USG Pelvis | Hypoplastic Uterus Both Ovaries not visualised Normal Appearing endometrial cavity |
| | | Sr. FSH | 199.10 mIU/ml |
| | | Sr. LH | 81.60 mIU/ml |
| 3 | 05.12.2019 | Total TSH (TSH 3 rd Generation) | 2.400 µIU/ml |
| | | USG Pelvis | Oval shaped hypoechoic area of 17x7mm noted in left adnexa and 11x6mm in right adnexa. No follicles noted within - ?May suggest hypoplastic ovaries Small sized ? hypoplastic ovaries |
| | | Uterus is anteverted and measures 6.3x3.8x2.4cms. It is normal in size, shape and surface contour | |
| 5 | 30.03.2022 | Serum Progesterone | 0.51 ng/ml |
| | | Sr. FSH | 2.89 mIU/ml |
| | | Sr. LH | 2.98 mIU/ml |

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| | | | |
|-----------|------------|------------------------|--|
| | | Sr. Oestradiol | 15.28 pg/ml |
| | | Sr. Prolactin | 23.46 ng/ml |
| | | AMH | < 0.01 ng/ml |
| 6 | 18.01.2023 | Sr. FSH | 150.12 mIU/ml |
| | | Sr. LH | 62.90 mIU/ml |
| | | Sr. Oestradiol | 45.45 pg/ml |
| | | USG Pelvis | Bilateral Ovarian atrophy / Agenesis |
| | | | Endometrial thickness – 3.8mm |
| 7 | 19.01.2023 | MRI Pelvis | Small sized uterus with normal appearing cervical canal, hyperintense uterine body with indistinct thin endometrium – Mildly hypoplastic uterus/atrophic uterine body Non visualization of the ovaries – Severe hypoplasia / agenesis |
| 8 | 24.01.2023 | Hb | 12.0 gm% |
| 9 | 06.05.2023 | Sr. FSH | 110.722 mIU/ml |
| | | Sr. LH | 62.463 mIU/ml |
| | | Sr. Oestradiol | 59.346 pg/ml |
| 10 | 23.02.2024 | USG Abdomen and Pelvis | Bilateral small / Hypoplastic ovaries with poor ovarian reserve |
| 11 | 23.02.2024 | USG Abdomen and Pelvis | Uterus appears anteverted, measures about 6.6x2.4x4.1cms. No focal lesion. Endometrial thickness – 80mm Both ovaries appear normal. No adnexal lesion seen Impression: No sonological abnormality detected |
| 12 | 25.02.2024 | FSH | 100 mIU/ml |
| | | T3 | 0.69 ng/ml |
| | | T4 | 8.10 mcg/dl |
| | | TSH | 2.40 µIU/ml |
| | | LH | 87.00 mIU/ml |

1. Hb% - 13.7gm/dl 2. WBC Total Count - 6100/cmm 3. ESR - 14 mm/1st Hr 4. RBS - 132 mg/dl
5. BLEEDING TIME - 1min 45sec 6. CLOTTING TIME - 4min 15sec 7. HIV I & II - NEGATIVE
8. HBsAg – NEGATIVE 9. URINE a. ALBUMIN – NIL b. SUGAR – NIL c. MICROSCOPY - NAD
d. BILE SALTS – ABSENT e. BILE PIGMENTS - ABSENT

Treatment plan

Initial Treatment

1. Tab. Chitrakadi Vati 1 bid after food for 5 days
2. Kalyanaka Ghrita 2tsp before food in morning
3. Tab. Rajapravartini Vati 1 bid after food
4. Shatavari Churna 1 part + Shatapushpa churna ½ part + Trikatu Churna 1/4th part = 1tsp bid after food for 2 months

After 2 months

1. Tab. Rajahpravartini Vati 1 bid after food
2. Tab. Aloes Compound 1 bid after food
3. Sukumara Ghrita 1 tspf before 7pm
4. Shatavari Churna 1 part + Shatapushpa churna ½ part + Trikatu Churna 1/4th part two times a day after food
This regime for 2 months
5. Dashamoolarishta 10ml with equal quantity of water after food twice a day
6. 8 days Matra basti with Mahanarayana Taila 60ml for the first month

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7. 8 Days Matra Basti with Ksheera Bala taila in the next month

8. Mahamasha Taila Pichu

Discussion

The uterus and ovaries are female reproductive organs where pregnancy occurs and is destined to undergo changes throughout the female reproductive years⁶.

Uterine hypoplasia is one condition that affects female reproductive health where the uterus is small or underdeveloped than the normal size⁷. It can be congenital or acquired.

Congenital hypoplasia is present since birth and it occurs when the uterus fails to fully develop in the fetus.

Acquired hypoplasia is a condition where uterus gets shrunken or atrophied due to hormonal imbalance, stress⁸, malnutrition, chronic endometriosis etc and due to complications after delivery, due to some toxins⁹.

Hypoplasia can lead to fertility issues, menstrual irregularities and other complications. Diagnosis is usually made through imaging tests and treatment options vary depending on the cause.

The development and maintenance of healthy reproductive system, both internal and external is possible only in the even of the elimination of unfavourable, endogenous and exogenous factors.

Preventing stress, hormonal imbalance and maintaining good nutrition is very essential to

avoid the development of conditions like hypoplastic uterus and ovaries.

The patient was having agni mandya, constipation, vata pitta pradhana symptoms. So we started the treatment with Deepana, pachana, vata pitta hara and brumhana chikitsa.

1. Chitrakadi vati – It does Deepana, pachana and helps in shodhana. It balances tridosha and improves agni.

2. Kalyanaka Ghrita – It helps the body to remove toxins from deeper tissues and cleanses them naturally. It is rich in nutrients so it helps in nourishing the tissues. It promotes menstrual health, promotes sleep and treats dourbalya and shosha.

3. Rajah Pravartini Vati – Regulates menstrual cycle, balances hormones, promotes overall wellbeing and supports reproductive health.

4. Shatavari Churna – Reduces stress and corrects hormonal imbalance. It is balya and rasayana and builds Ojas.

5. Shatapushpa Churna – It helps in relieving vaginal dryness, infertility, pain in vagina and regulates normal menstrual flow.

6. Trikatu Churna – Deepana and pachana in nature

7. Aloes Compound – Helps in amenorrhea, promotes menstrual health.

8. Sukumara Ghrita – It improves digestive health, reproductive health and helps in dourbalya.

9. Dashamoolarishta – Nutritional tonic helps in relieving general weakness, fatigue. Balya in

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action, Rasayana, Balances vata dosha, strengthens the muscles of uterus and helps the uterus to regain normal size and shape.

CONCLUSION

The patient is satisfied with the improvement in general health and stress management. She regained strength, lustre on skin and looks moderately built. She had gained weight and symptoms like insomnia, indigestion, stress are relieved. She got scanty menses 3 times since we started treatment for a period of 2 days in 5-7 day cycle and her reports shows good changes in hormones and her uterus size is also normal now. And Ovaries sized changed completely from agenesis to hypoplastic ovaries. She is under treatment for further management of hypoplastic ovaries and regulating her menses to normal.

Further plan of action:

From 24.04.2024, Madhutailika Basti is administered for 5 days. After 10 days patient attained menses for 2 days. Internally the following drugs have been administered,

1. Kushmanda Avaleha 1 tbsp once a day with Godugdha.
2. Tab. Aloes compound 1 tablet T.I.D. after food
3. Shatavari Ghrita 1 tspf H.S. after food

Will be planning for a Radiological investigation to assess and decide further treatment plan.

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Annexures:

The investigation reports such as ultrasonography, MRI and other blood investigations that show important changes in this case report have been attached here from Figure no. 1 to Figure No. 6.

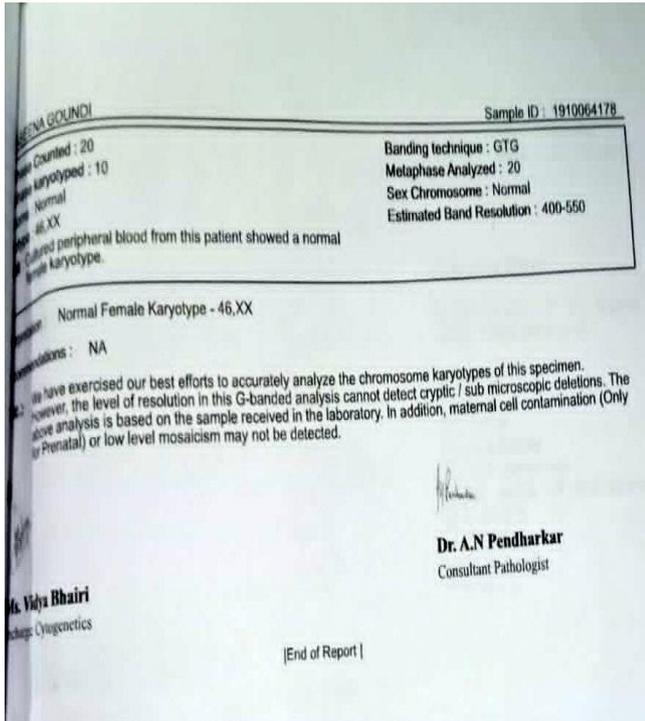


Figure 1 Cultured Peripheral Blood Karyotype Study

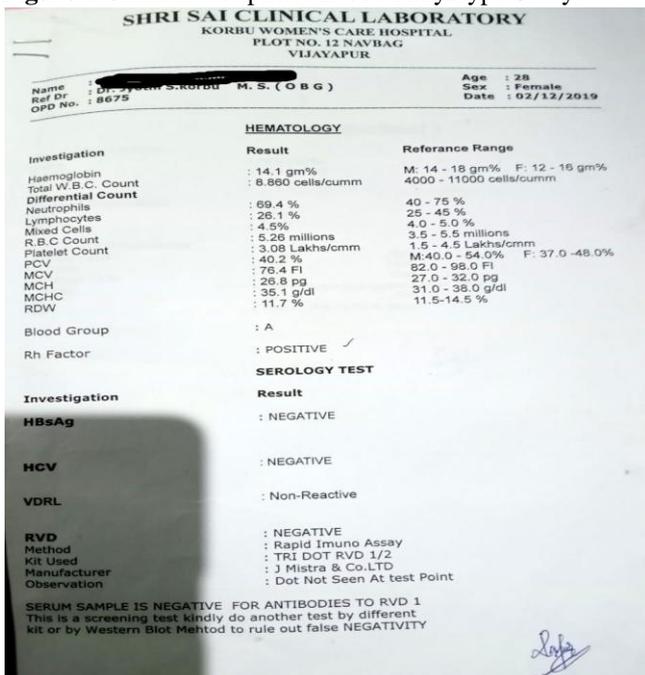


Figure 2 Blood investigation

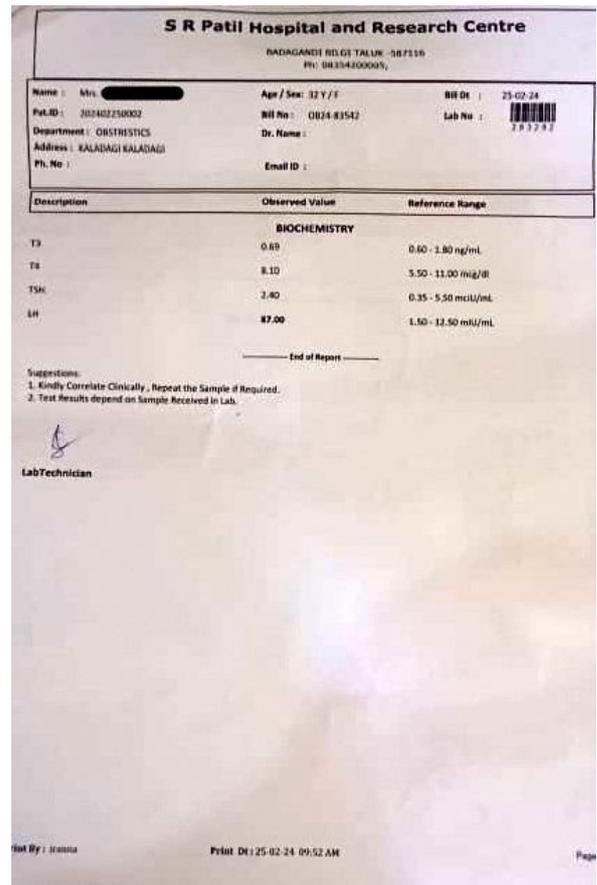


Figure 3 Thyroid profile

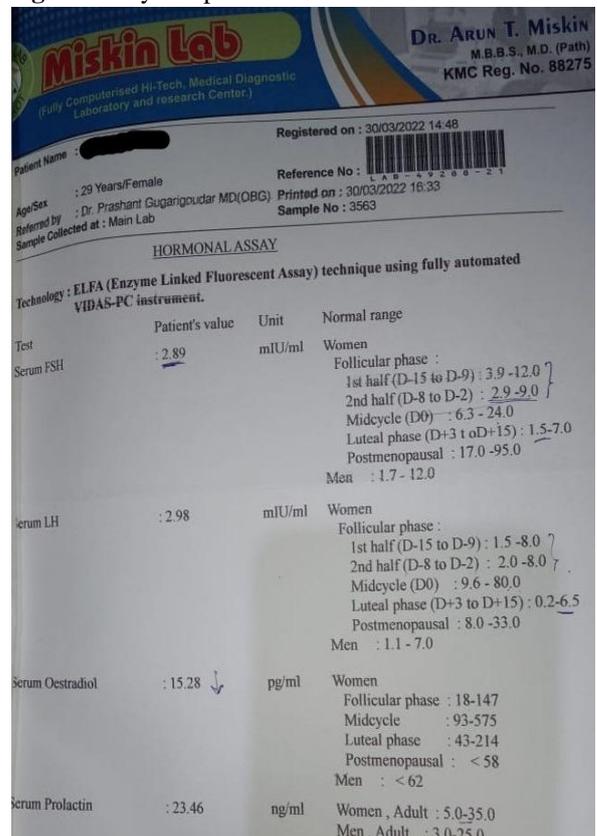


Figure 4 Blood Investigations (Thyroid Profile, Prolactin)

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BAGALKOT SCANS AND DIAGNOSTICS
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Technology at your door step

NAME: HASINA GODI **AGE & SEX:** 32Y/FEMALE
REF. BY: SELF **DATE:** 19.01.2023

MRI PELVIS – PLAIN

PROTOCOL: Axial, sagittal & coronal T1, T2 and STIR sequences taken.

OBSERVATIONS:
Uterus is smaller ins size measuring 4.8 x 3.8 x 2.3 cms. Cervix shows normal T2W hypointense stroma with thin cervical canal. Body of the uterus shows T2W iso to hyperintense signal. Endometrial lining indistinct and not clearly visualized. The ratio of cervix to body is approximately 1:1.
There is well-defined T2W hyperintense, T1W hypointense CSF intensity cystic lesion measuring 2.6 x 4.9 x 4.8 cms is noted involving the sacral canal. It is causing compression and scalloping of the posterior aspect of the sacral vertebrae with mild widening of right sacral foramina. Minimal projection into right pre sacral region noted.
Both ovaries are not visualized.
Urinary bladder appears normal.
Visualized pelvic bones show normal marrow signal intensity and alignment. No elo lytic/ sclerotic lesion noted. No elo fracture/dislocation noted.
Rectosigmoid and anal column, ischiorectal and ischio-anal fossae appear normal.
No evidence of significant lymphadenopathy.
Vessels / Pelvic Gi Tract / Mesentery / Soft Tissues / Musculoskeletal. Unremarkable.
Pelvic Peritoneal Cavity: No free fluid in the POD.

IMPRESSION:
➤ Small sized uterus with normal appearing cervical canal, hyperintense uterine body with indistinct thin endometrium – Mildly hypoplastic uterus / atrophic uterine body.
➤ Non visualization of the ovaries – Severe hypoplasia / agenesis.

Suggested: Clinical correlation.

[Signature]
Dr. Sudheendraswamy V Brahmabhermath
Consultant Radiologist

Before Treatment

Police Station Road, Bagalkot - 587101. Ph : 08354-221240, Mob. : 9886476635 E-mail : bagalkotscans@gmail.com

Figure 5 Mri Pelvis

S R PATIL EDUCATION FOUNDATION (R)@
S R PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, BADAGANDI-587116
Tq : Bilagi Dist. Bagalkot, KARNATAKA STATE

Patient Name: H Goundi **Age/Gender:** 32Y/F
Ref By: Dept of Gynaecology **Date:** 23/02/2024

USG ABDOMEN AND PELVIS

Findings:
Liver: Normal in size and echotexture. No focal liver lesion.
HBV and CBD: Normal. Portal vein: Patent.
Gall bladder: Well distended. No calculi. Pericholecystic Area: Clear.
Spleen: Normal
Pancreas: Head and body appear normal. Tail could not be visualised due to bowel gas shadows.
Both kidneys: Normal in size, shape, axis and echotexture. No hydro-nephrosis.
Cortico-medullary junction: Well maintained.
RK: 8.9 x 3.2 cm LK: 8.6 x 3.6 cm
Urinary bladder: Well distended. No focal lesion or calculi. No abnormal wall thickness or irregularity.
Uterus: appears anteverted, measures about 6.6 x 2.4 x 4.1 cm. No focal lesion. Endometrial thickness –8mm.
Both ovaries: small in size
Right ovary: AFC: Nil ; **Left ovary:** Nil
Bowel: No abnormal bowel wall thickening / dilatation. Normal peristalsis.
No free fluid in the peritoneal cavity at the time of scan.

IMPRESSION:
• Bilateral small / Hypoplastic ovaries with poor ovarian reserve.

[Signature]
Dr. Shruti V Makani, MDRD
Consultant Radiologist.

After Treatment

Figure 6 USG abdomen and pelvis

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REFERENCES

1. <https://www.eggdonors.asia>> Hypoplastic uterus
2. https://en.wikipedia.org/wiki/Uterine_hypoplasia
3. https://en.wikipedia.org/wiki/Uterine_hypoplasia
4. https://www.suntex_clinic.com - case studies
5. <https://www.contemporaryobgyn.net>
6. <https://institutobernabeu.com>
7. <https://ayu.health>> blog>uterine hypoplasia
8. <https://www.k31.ru>>services
9. <https://ayu.health>>blog>uterine hypoplasia