

## AN AYURVEDA APPROACH ON MANAGEMENT OF CRYPTORCHIDISM IN CHILDREN – A CASE REPORT

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## ABSTRACT

Failure of descent of testes is a congenital anomaly that is established as a risk factor for Infertility and Testicular germ cell tumor. The conventional interventions followed are either hormonal, surgical or both, which involves the risk of complications like Testicular Torsion, Neoplasm and associated cosmetic concerns. According to *Ayurveda*, the descent of testes occurs as a result of the normal functioning of the *Apana vayu*. In this case study, management was planned on considering the *samprapti* involving, *Apana vayu*, *Agni* and *Sukravaha srotas* and significant results were observed. As this is a single case observation, revalidation through well designed clinical trials can yield improved results.

**Keywords:** Cryptorchidism, *Apana Vayu*, *Sukravahasrotas*

## INTRODUCTION

Cryptorchidism, a congenital genitourinary anomaly in pediatric age group is referred to as the mal-descent of one or both testes into the scrotum. Around 2-4% of infants are globally diagnosed with unilateral or bilateral cryptorchidism<sup>1</sup>. Testicular descent is hormonally controlled in two phases: between the gestational age of 8-15 weeks and 25-35 weeks. The disruption in either one or both phases results in failure of the descent. Even though a definite etiology is ambiguous, a multifactorial array of endocrinal, environmental, genetic, anatomical and mechanical factors is said to be responsible for the anomaly, indicating its complexity. Though the mode of treatment for undescended testes remains controversial, various studies and meta-analysis have led to the formulation of two basic methods: hormonal and surgical, either used individually or as a complementary method. Success rates of hormonal therapy vary from 8% to 60%, whereas it is above 95% for surgical intervention through orchipexy<sup>2</sup>.

However, these modes of management do not ensure the normal functioning of testes even after the testes becomes palpable. Moreover, complications like testicular atrophy, post-operative torsion and testicular retraction are also not rare. This major drawback in the conventional therapy, which leads to morbidities in infants, calls for better intervention with the help of complimentary methods that leave minimal damage to the organ.

In Ayurveda, normalcy and disequilibrium states of *Tridoshas*: -*Vata*, *Pitta* and *Kapha* are said to be re-

sponsible for health and disease respectively. Among the three *doshas*, *vata* by its initiation and controlling nature is a chief factor for the physiological maintenance of the body. This *vata* aggravates as a result of either *dhatukshaya* or *avarana* which occurs in the internal body channels (*srotas*). *Apana vayu* governed by hormonal functions along with the intact pathway (*srotas*) are the factors that assist in the descent of testes<sup>3</sup>. So, any pathophysiology interrupting these factors is responsible for mal-descent of testes. In this regard, an 11yr old boy presented with swelling in the suprascrotal region on both sides along with discomfort was managed systematically.

### Case Report:

An 11-year-old boy accompanied by his mother visited Kaumarabhrtya OPD of Vaidyaratnam P S Varier Ayurveda College with OP No: 20180050545 on 20-12-2019 for the complaints of absence of testes in the scrotum along with an abnormal swelling above the penis since birth which was neither reduced nor disappeared even after the age of 11yrs. The child also had discomfort while micturition and on wearing undergarments or pants. Involuntary movement of masses to lateral side was observed especially during the night hours. On abdominal examination, testes were found to be palpable on both suprascrotal regions. The testis on the right side was found to retract back to the previous position after palpation.

### Treatment Protocol:

**Table 1:** Stage 1 :( 18 Days)

Treatment	Medicine
Internal Medications	1) <i>Pippalyasavam</i> + <i>Draksharistham</i> dose :10ml TID After Food
External Therapy	1) <i>Abhyanga</i> in <i>nabhi</i> (umbilical region) using <i>Ksheerabala thailam</i> 2) <i>Avagaha</i> using decoctions prepared with <i>Eranda</i> , <i>Shigru</i> and <i>Chincha</i>

**Table 2:** Stage 2: (21 Days)

Treatment	Medicine
Internal Medications	1) <i>Gandharvaeranda Thailam</i> – 5ml 2) <i>Dhanwantaram 101 Avarthi</i> - 10 Drops with Lukewarm Water.
External Therapy	<i>Abhyanga</i> in <i>nabhi</i> using <i>Dhanwantaram thailam</i>

**Table 3:** Stage 3: (14 Days)

Panchakarma Therapy	Medicine
Abhyanga followed by Thalam (7 Days)	1) Dhanwantaram Thailam and Lakshadi Thailam 2) Rasnaadi Choornam with Jambheera Swarasam
Matravasti (11 Days)	Dhanwantaram Mezhupakam -25ml
Lepam (7 Days)	Shastikalepam

**Table 4:** Outcome

Assessment	Before Treatment	After Treatment
Position	suprascrotal region	Scrotal region
Retractability	Frequent	Absent
Co-Morbid Conditions	Dysfunctional voiding	Absent

**FINDINGS:**

According to the Doppler study of Scrotum on 26-01-2019 findings were:

- 1) Bilateral testes visualized in the scrotal cavity
- 2) Right testis measured – 1.3\*1\*1.07cms
- 3) Left testis measured-1.3\*2\*1.07cms
- 4) No focal lesions nor any free fluid collection was seen in the scrotal cavity.
- 5) Bilateral inguinal canals were visualized normal.

**DISCUSSION**

Since Ayurveda classics have not mentioned a condition like Cryptorchidism, the clinical features were studied on the basis of imbalance of doshas, derangement of agni and abnormality of srotas. A thorough knowledge regarding the evolutive process of the condition is of great importance as it benefits in the formulation of the treatment protocol. Hence the effort made on understanding the samprapti and designing an apt protocol has led to a positive outcome in this condition.

On observing the clinical features, an evident involvement of Apanavayu dusthi, Agni vikruti and Srotodusthi is seen. The srotas that is affected in the present condition is the Sukravahasrotas, where avarana of vata due to agni derangement leading to mal-descent. The discomfort while micturition was caused by Apanavayu dusthi

Hence the line of management was targeted by treating the Agni, Apanavayu dusthi and resolving the Sukravahasroto dusthi. Moreover, the treatment mo-

dality of Vatadusthi mentioned in the classics - Snehana, Swedana and Vasti are adopted in this condition<sup>4</sup>.

The agnideepana was initiated through the internal administration of the Pippalyasava and Draksharistha. Later the internal as well as the external procedure of avagaha, abhyanga and matrabasti promulgated the normal gati of Apanavayu. This led to the proper descent of the testes. Finally, strengthening of the srotas through the shastikalepa, resulted in non-recurrence of the condition.

**CONCLUSION**

The rationale behind the treatment of cryptorchidism is the reduction of long-term sequelae, including testicular torsion, neoplasm and cosmetic concerns. On the consideration of dosha, agni and srotas involved the treatment done was found to be effective without any recurrence. Ayurveda based intervention, not merely acts as an alternative to surgical intervention in the mal-descent but also prevents in the development of complications.

A well-designed clinical trial can be done to bring about an affirmative conclusion that these Ayurveda protocols can be an effective management tool for treatment of Cryptorchidism in children. Thus, Ayurveda can act as a firsthand management to shield from the apprehensions due to the complications of Cryptorchidism.

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