

# The Concept of Artificial Pot-Born Child (Test-Tube Baby) in Sanskrit Literature

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## Abstract

This study examines the concept of artificial birth, particularly the Test-Tube Baby, in ancient Sanskrit literature. Texts such as the *Vedas*, *Mahābhārata*, and *Rāmāyaṇa* describe instances of children born without a mother's womb, referred to as **ayonija** or **pot-born (ghaṭaśiśu)**, including figures like Agastya, Vasiṣṭha, the Kauravas, and Droṇācārya. While these accounts are largely descriptive rather than procedural, they reveal a conceptual understanding of reproductive possibilities that parallels modern **in-vitro fertilization (IVF)** techniques. The study underscores the foresight of ancient Indian sages and highlights the continuity between traditional knowledge systems and contemporary reproductive science, suggesting that Sanskrit literature provides both philosophical and conceptual foundations for modern medical innovations.

**Keywords:** Sanskrit Literature, Test-Tube Baby, IVF, Ayonija, Ghaṭaśiśu, Mahābhārata, Ancient Indian Science, Reproductive Technology

## Research Significance

This research highlights the remarkable foresight of ancient Indian sages in conceptualizing reproductive phenomena that align with modern medical science. By tracing the parallels between scriptural descriptions of pot-born children and contemporary IVF practices, the study demonstrates the enduring relevance of Sanskrit literature in informing and inspiring scientific inquiry today.

## Research Methodology

The research adopts a **qualitative, descriptive, and comparative methodology** to explore the concept of artificial birth (Test-Tube Baby) in ancient Sanskrit literature and its relevance to modern reproductive science. The methodology comprises the following steps:

### 1. Textual Analysis of Primary Sources

- Examination of ancient Sanskrit texts, including the *Vedas*, *Mahābhārata*, *Rāmāyaṇa*, *Purāṇas*, and Ayurvedic treatises.
- Identification and collection of passages describing **ayonija** or **pot-born children (ghaṭaśiśu)**.
- Critical reading and interpretation of relevant verses to understand the context, terminology, and conceptual frameworks of artificial birth in these texts.

### 2. Comparative Study

- Comparison of ancient descriptions of pot-born children with **modern assisted reproductive technologies (ART)**, especially **In-Vitro Fertilization (IVF)**.

- Analysis of similarities and differences between scriptural accounts and contemporary scientific procedures, focusing on conception methods, gestation, and birth outcomes.

### 3. Secondary Source Consultation

- Review of academic research, books, and articles on Sanskrit literature, and ancient Indian science,

### 4. Limitations

- Ancient texts provide conceptual and descriptive insights rather than step-by-step procedural guidance.
- Interpretations rely on translations and commentaries, which may introduce linguistic or contextual nuances.

This methodology allows a systematic and scholarly exploration of how ancient Indian knowledge systems anticipated aspects of modern reproductive technology, providing both historical and conceptual understanding.

## Scope and Objectives

### Scope:

This study focuses on the conceptual understanding of artificial birth, particularly Test-Tube Babies, as described in ancient Sanskrit literature. It primarily examines texts such as the *Vedas*, *Mahābhārata*, *Rāmāyaṇa*, *Purāṇas*, and selected Ayurvedic treatises. The research highlights instances of **ayonija** or **pot-born children (ghaṭaśīṣu)**, analyzing how these accounts anticipate modern reproductive technologies like **In-Vitro Fertilization (IVF)**. The study does not aim to provide practical medical procedures but seeks to explore the philosophical, conceptual, and scientific foresight in ancient Indian texts.

### Objectives:

1. To identify and document references to artificial birth and pot-born children in Sanskrit literature.
2. To analyze the narratives of notable figures such as Agastya, Vasiṣṭha, the Kauravas, and Droṇācārya in the context of artificial birth.
3. To compare the ancient conceptualizations of pot-born children with modern reproductive technologies, particularly IVF.
4. To evaluate the contribution of ancient Sanskrit knowledge to contemporary scientific understanding of reproductive processes.
5. To highlight the philosophical and scientific significance of ancient Indian texts in the context of modern biotechnology.

This framework ensures that the research remains focused, interdisciplinary, and relevant, bridging ancient wisdom and modern science.

## The Influence of Science in Ancient Sanskrit Literature

Sanskrit literature serves as the foundation of all knowledge. Ancient Sanskrit texts—where philosophy, the Vedas, and grammar coexist—also contain elements of scientific understanding. Science holds a profoundly important place in human life. The term *Vijñāna* (विज्ञान) is derived from “Vi-Jñā-Lyut,” meaning “specialized knowledge,” and corresponds to the modern English concept of science. The role of ancient scriptures in preserving and transmitting scientific knowledge is undeniable.

Fields such as biology, chemistry, physics, and medical science are among the priceless treasures of Sanskrit scientific heritage. Examples of scientific thinking can be found in Vedic literature, the Brāhmaṇas, Āraṇyakas, Upaniṣads, epic texts, and the Charaka and Suśruta Saṃhitās. For instance, the *Brahmāstra* described in the Mahābhārata can be interpreted in modern times as a precursor to nuclear weapons.

Modern medical science, directly or indirectly, continues to rely on insights from these ancient texts. Beyond Ayurveda, references in the Vedas, Mahābhārata, Rāmāyaṇa, and Purāṇas reveal early foundations of medical knowledge. Ancient scriptures also provide examples relevant to modern practices such as test-tube babies, cloning (cell-division-based reproduction), and parthenogenesis (birth without sexual union).

This research focuses specifically on the concept of the “pot-born child” (*Ghaṭaśiṣu* or *Kumbhaśiṣu*) as described in these texts. Although references appear across various scriptures, this paper concentrates on selected verses from the Ṛgveda and Mahābhārata. The Ṛgveda recounts the births of sages Agastya and Vasiṣṭha, while the Mahābhārata narrates the stories of Gāndhārī’s hundred sons and Droṇācārya. All of these figures are described as having been born from a pot (*kumbha*).

### **The Process of Test-Tube Baby (Artificial Pot-Born Child) in Modern Medical Science**

Under natural conditions, an embryo forms in the mother’s womb through the union of an ovum and a sperm. However, infertility in either the man or the woman can prevent this natural conception, leading to difficulties in achieving pregnancy.

To address this issue, modern medical science has developed an artificial technique known as In Vitro Fertilization (IVF). The term *In Vitro* means “in a laboratory,” and IVF refers to the method of creating an embryo outside the mother’s body under controlled laboratory conditions. There is no direct Sanskrit term for this procedure.

In IVF, with the aid of scientific techniques, the ovum and sperm are combined in a test tube or petri dish, producing an embryo. This artificially created embryo is then implanted into the mother’s uterus, where it develops naturally, ultimately resulting in the birth of a fully developed child. Children born through this method are known as Test-Tube Babies.

The first test-tube baby in the world was Louise Joy Brown, born in England in 1978, while India’s first was Kanupriya Agarwal (Durga). Interestingly, the concept of such an artificial birth was hinted at in ancient texts during the Vedic period and in the Mahābhārata, though these sources provided only conceptual references without detailed procedural descriptions.

### **3. The Pot-Born Child in the Vedas**

The Vedas, the oldest texts in the world, contain the earliest references to artificially born pot-children (*kṛtrima ghaṭaśiṣu*). The Ṛgveda (7.33.13) describes the birth of Sages Agastya and Vasiṣṭha as follows: **“*Satre ha jātāviṣitā namobhiḥ kumbhe retaḥ siṣicatuh samānam, Tato ha māna udiyāya madhyāt, tato jātam ṛṣim āhur Vasiṣṭham.*”**

According to this verse, Sages Agastya and Vasiṣṭha were born through the divine energy of the deities Mitra and Varuṇa. Their birth occurred from a pot (*kumbha*) or vessel (*puṣkara*) in which vital seed was preserved. The term *puṣkara* refers to a vessel filled with nourishing substances, and hence a child born from such a vessel is called a *ghaṭaśiṣu*, meaning “pot-born child.”

Thus, Sages Agastya and Vasiṣṭha were born not from a mother's womb but from a pot containing sacred ghee or other nourishing fluids. Consequently, they are classified as *ayonija*, meaning “not born through natural childbirth.”

#### 4. Pot-Born Children Described in the Mahābhārata

##### a. The Birth Story of Gāndhārī's Hundred Sons

The birth of **Gāndhārī's hundred sons** is one of the most astonishing accounts in the *Mahābhārata*. It is naturally impossible for a single woman to give birth to a hundred children at once; hence, the story of the Kauravas' birth is regarded as highly extraordinary. In the *Ādiparva* of the *Mahābhārata*, Chapter 109 and onward, the narrative of the births of Duryodhana and his ninety-nine brothers, along with their sister Duḥśalā, is found. Bhagavān **Vedavyāsa** granted a boon to Queen **Gāndhārī**, saying: “*May you be the mother of a hundred sons.*” As a result, she conceived through **Dhṛtarāṣṭra**. However, even after two full years, she did not give birth.

“For two full years, Gāndhārī carried the embryo in her womb. Though she bore it for so long, she could not bring forth a child and became sorrowful.” (*Mahābhārata, Ādiparva 109.9*)

Hearing that Kuntī had already given birth to Yudhiṣṭhira, Gāndhārī, overcome with anger, tried to expel her embryo prematurely. King Dhṛtarāṣṭra was unaware of this. From her womb came forth a **hard lump of flesh**, like a piece of iron:

“Then was born a mass of flesh, hard as an iron ball, which she had carried in her womb for two years.” (*Mahābhārata, Ādiparva 109.12*)

At that moment, Sage **Vyāsa**, through his divine insight, became aware of the incident and immediately came to her. He instructed that one hundred pots filled with ghee (clarified butter) be prepared without delay. The lump of flesh was sprinkled with cold water, cut carefully into a hundred equal pieces, and each piece was placed separately into a pot filled with ghee.

“Prepare a hundred pots filled with ghee immediately, and keep them in well-protected places.” (*Mahābhārata, Ādiparva 109.18*)

“Sprinkle the lump with cold water; as it was sprinkled, it divided into many parts.” (*Mahābhārata, Ādiparva 109.19*)

Each piece was placed separately in a ghee-filled pot and carefully preserved. After the passing of one year, the first child—**Duryodhana**—was born, and thus he became the **eldest of the Kauravas**.

The *Mahābhārata* further describes that the embryo was divided into **hundred and one small parts**, each **the size of a thumb-joint**, and then placed separately into pots:

“Each embryo was of the size of a thumb-joint, And altogether there were one hundred and one of them, arranged properly.” (*Mahābhārata, Ādiparva 109.20*)

“Then he placed each of those embryos separately into the pots.” (*Mahābhārata, Ādiparva 109.21*)

Along with the hundred sons, **Duryodhana's only sister, Duḥśalā**, was also born in the same manner. This account is found in Chapter 110 of the *Ādiparva*:

“This fortunate girl will be your desired daughter. Then, bringing another pot filled with ghee, the great sage continued the process.” (*Mahābhārata, Ādiparva 110.17*)

From these verses, it becomes evident that the **Kauravas were artificial pot-born children** (*kṛtrima ghaṭaśiśavaḥ*).

Their birth did not take place in the mother's womb but from **pots filled with ghee**. Hence, they may rightly be described as **Test-Tube Babies** or **Pot-Born Children**.

It is noteworthy that the **ghee placed in the pots** was not ordinary ghee. Just as in the mother's womb there exist nourishing elements essential for the development of the embryo, so too these pots were filled with nutrient substances capable of supporting life and growth. From these enriched pots, the Kaurava children were born. Therefore, it can be said that the modern scientific innovation known as the **Test-Tube Baby** or **artificial pot-born child** (*ghaṭaśiśu*) had its conceptual precedent even in the **Mahābhārata era**. The ancient sages appear to have possessed an understanding of this kind of biological process and technique.

#### **b. The Birth Story of Droṇācārya**

In the *Mahābhārata*, another notable example of a **pot-born child** (*ghaṭaśiśu*) is **Droṇācārya**. His birth narrative is described in the *Ādiparva*, Chapter 126, Verses 9–14. The sage **Bharadvāja**, while performing his austerities, once emitted his seed (*retah*) which he collected and preserved in a pot (*kalaśa*).

After some time, from that preserved vital essence, a son was born. Since he was born from a **pot** (**droṇa or kalaśa**), he came to be known by the name **Droṇa**.

“Then his seed fell, and the sage placed it in a pot.” (*Mahābhārata, Ādiparva 126.13*)

“From that pot, a child was born — hence he was called Droṇa.” (*Mahābhārata, Ādiparva 126.14*)

Droṇācārya's birth did not occur through a mother's womb but from a pot; therefore, he too is known as **ayonija** — “not womb-born.” As he himself declares: “Born from Bharadvāja, I too am not womb-born (*ayonija*).” (*Mahābhārata, Ādiparva 126.33*)

Thus, Droṇācārya stands as another striking example of an ancient *artificial birth* described in the *Mahābhārata*, comparable to the modern scientific concept of the **Test-Tube Baby** — a being conceived and developed outside the natural womb.

### **5. Conclusion**

In modern science, new discoveries and innovations arise every day. However, such discoveries were already conceived by the sages and seers of our country many ages ago. In the *Vedas, Mahābhārata, Rāmāyaṇa*, and *Purāṇas*, numerous examples of scientific ideas can be found. Yet, there is one notable difference:

In the ancient scriptures, the scientific knowledge was **theoretical and descriptive**, not **practical or procedural**.

In contrast, modern science not only explains these principles but also demonstrates them **experimentally and practically**.

In ancient Indian culture, the concept of the *pot-born child* (*ghaṭaśiśu*) is especially remarkable. It shows that birth was considered possible even **without a mother's womb**—such a being was termed **ayonija** (“not womb-born”). However, in the modern age, this is not entirely possible; even today, in the *test-tube baby* method, the embryo developed in the laboratory is eventually implanted into the mother's uterus, where birth takes place.

Therefore, it can be concluded that **the contribution of ancient scriptures to modern medical science cannot be denied**. The scientific ideas envisioned by the sages of India form the philosophical foundation upon which much of modern science continues to build.

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