

# Science in Sanskrit Scriptures

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**Wall of Honour, Royal Society of Medicine, London**

# Introduction

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# Braham Samhita

- यच्चक्षुरेष सविता सकलग्रहाणां  
राजा समस्तसमर्तिरशेषतेजाः ।  
यस्याज्ञया भ्रमेति सम्भूतकालचक्रो  
गोविन्दमादिपुरुषं तमर्हं भजामि ॥ ५२ ॥
- The sun like a divine in the sky, along with all the planets, full of infinite effulgence, I adore the primeval Lord Govinda in pursuance of whose order, the sun performs his journey mounting the wheel of time.

# Brahma Samhita

- यः कारणार्णवजले भजति स्म योग-  
-निद्रामनन्तजगदण्डसरोमकपः ।  
आधारशक्तिमवलम्ब्य परा स्वमतिं  
गाविन्दमादिपुरुष तमहं भजामि ॥ ४७ ॥
- I adore the primeval Lord Govinda who assuming His own great subjective form, who bears the name of Śeṣa, replete with the all-accommodating potency, and reposing in the Causal Ocean with the millions of Galaxies pouring out of the pores of His hair, enjoys creative sleep [yoga-nidrā].

# Science in Sanskrit Scriptures

- **Creation and Recycling of the Universe**
- **Atoms and Atomic time**
- **Mathematics and Concept of Zero**
- **Divine Weapons – Brahmastra**
- **Vimanas – Aircrafts and Spaceships**
- **Medicine and surgery**
- **Kaliyuga**

# The Sanskrit Scriptures

- **Bhagvata Gita (Bg) – has 18 chapters. So Shloka Bg 9.7 would be shloka 7 from chapter 9**
- **Bhagvatam Purana (Sb) has 12 Cantos. Each canto has many Chapters and each chapter has many shlokas. So Sb 1.1.1 would be Canto1, Chapter1, Shloka1.**
- **Braham Samhita (BS) – has chapters and shlokas. So BS 5.47 would be shloka 47 of Chapter 5**
- **Isha Upanishad has only shlokas. Iso Invocation and Iso 1 etc.**
- **Sushruta Samhita has divisions, chapters and Shlokas.**



# Cyclic Conception – applicable to perpetuation of Universe and also Zero

- Isha Invocation
- ॐ पूर्णमदः पूर्णमिदम पूर्णात् पूर्णमदच्यते ।  
पूर्णस्य पूर्णमादाय पूर्णमेवावशिष्यते
- That is complete, this is complete. Complete arises from Complete. Complete taken out of complete, Complete remains!



Missile fired very recently – neutralised in the sky by another missile..!!



ŚB 1.7.30

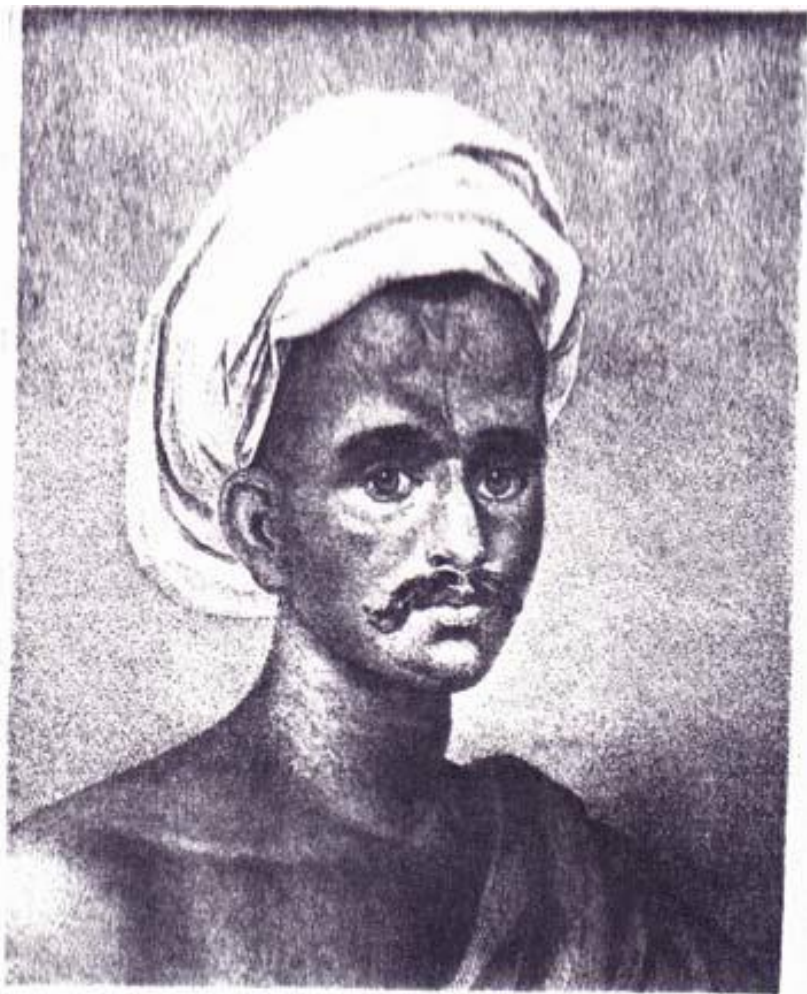
संहत्यान्योन्यमुभयोस्तेजसी शरसंवृते ।  
आवृत्य रोदसी खँ च ववृधातेऽर्कवह्निवत् ॥  
३० ॥

**When the rays of the two brahmāstras combined, a great circle of fire, like the disc of the sun, covered all outer space and the whole firmament of planets.**

# Department of Plastic Surgery



**OXFORD**



*Portrait of the Patient before the Operation*

*Portrait of the Patient after the Operation*

# A SINGULAR

# OPERATION.



*1. View of the Eye before the Operation*

*2. The Position of the eye after*

*it had taken the Place of the eye-ball*

*3. The eye after the Operation*



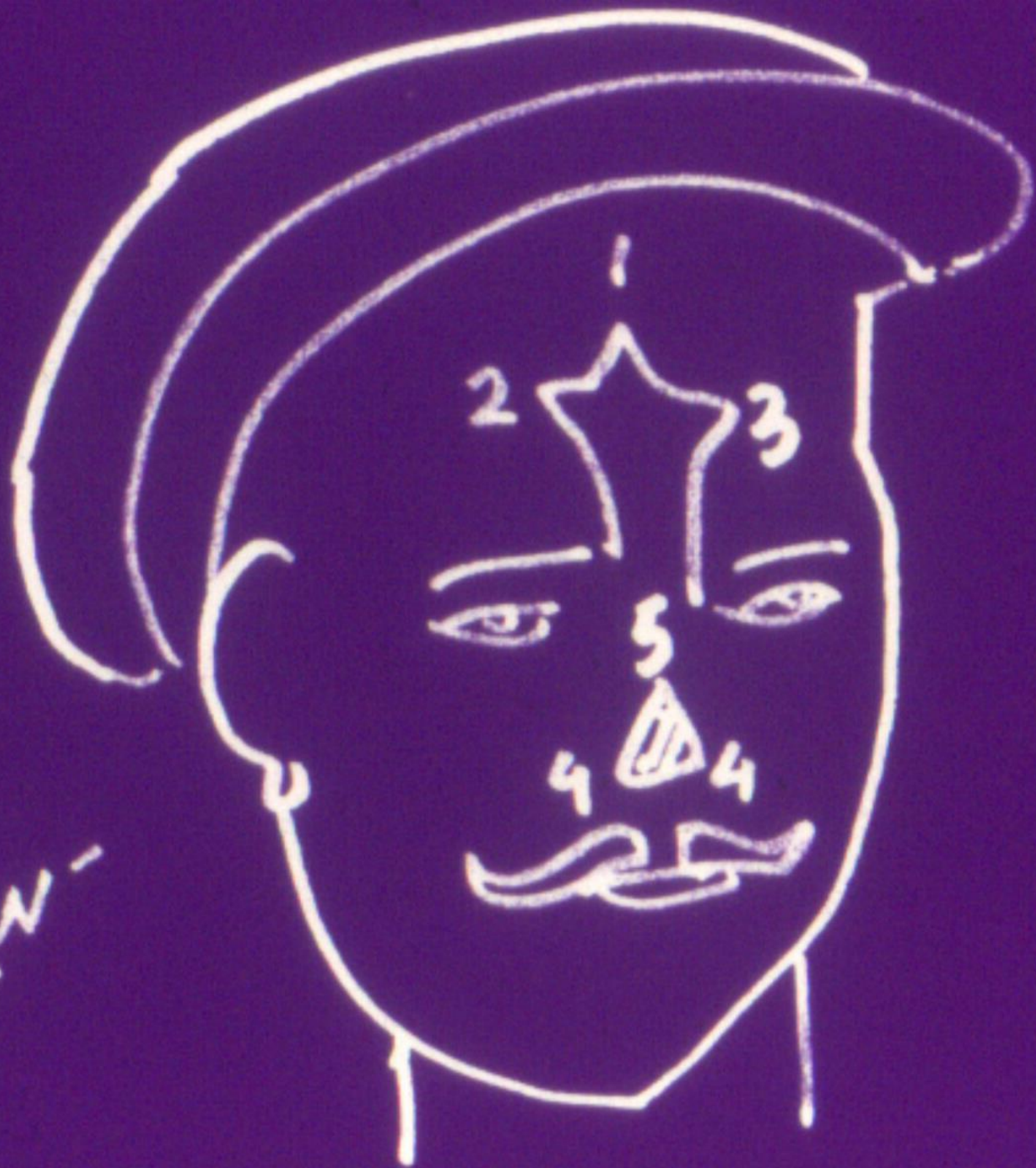
*The Place of the eye in the Head before the Operation*

*From the Position which the eye of the patient is supposed*

**WASHER**, a Student of the Faculty of Medicine, who was a Patient, served with the English Army in the Year of 1798, was afflicted with a violent inflammation of the Eye, which he perceived at the End of the Month of August, and which he continued to increase, until he had a violent pain in the Eye, which he was obliged to quit by the Assistance of a Surgeon, who performed the Operation, which has been printed for some time, and is now published.



WAX PATTERN



Origin and Propagation  
of Rhinoplasty

Mr. Y.P.Gupta, F.R.C.S.

Mr. T.J.S.Patterson, FRCS

**BC 500**

**SUŚRATA**

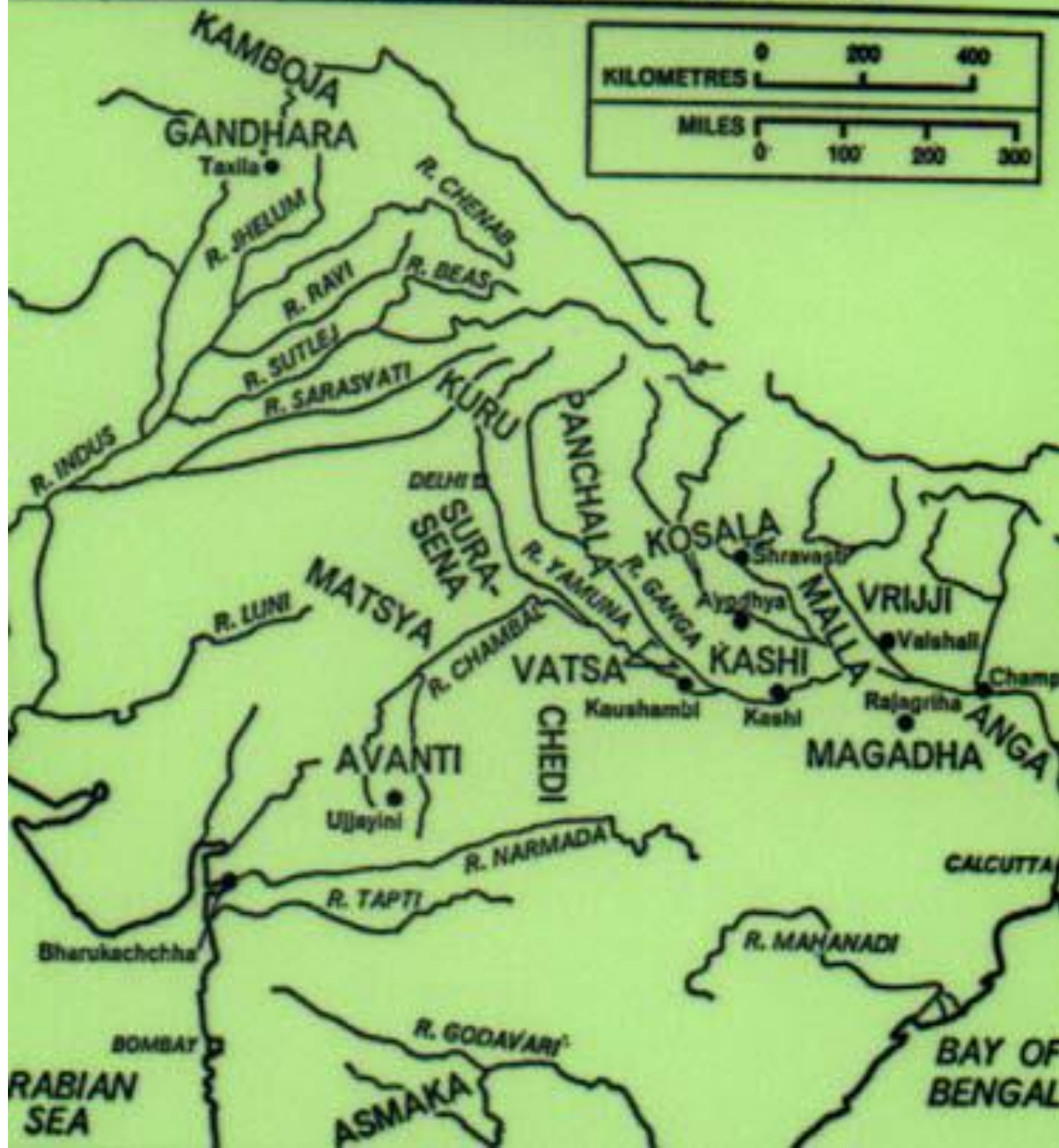
**Sushruta (500 B.C.) described the earliest known work on plastic surgery in the Sushruta Samhita.**

**The book has 186 chapters written in Sanskrit language and chapter 16 deals with some fundamental plastic surgical techniques.**

**The book has been translated in Arabic (Kitab-e-Susrud, around 800 A.D.), in Latin (by Hessler, 1844-55), in German (by Vellurs), in English (by Bhishgratna, 1907; by Singhal et al., 1984).**



# THE SIXTEEN MAJOR STATES OF NORTHERN INDIA c. 600 B.C.



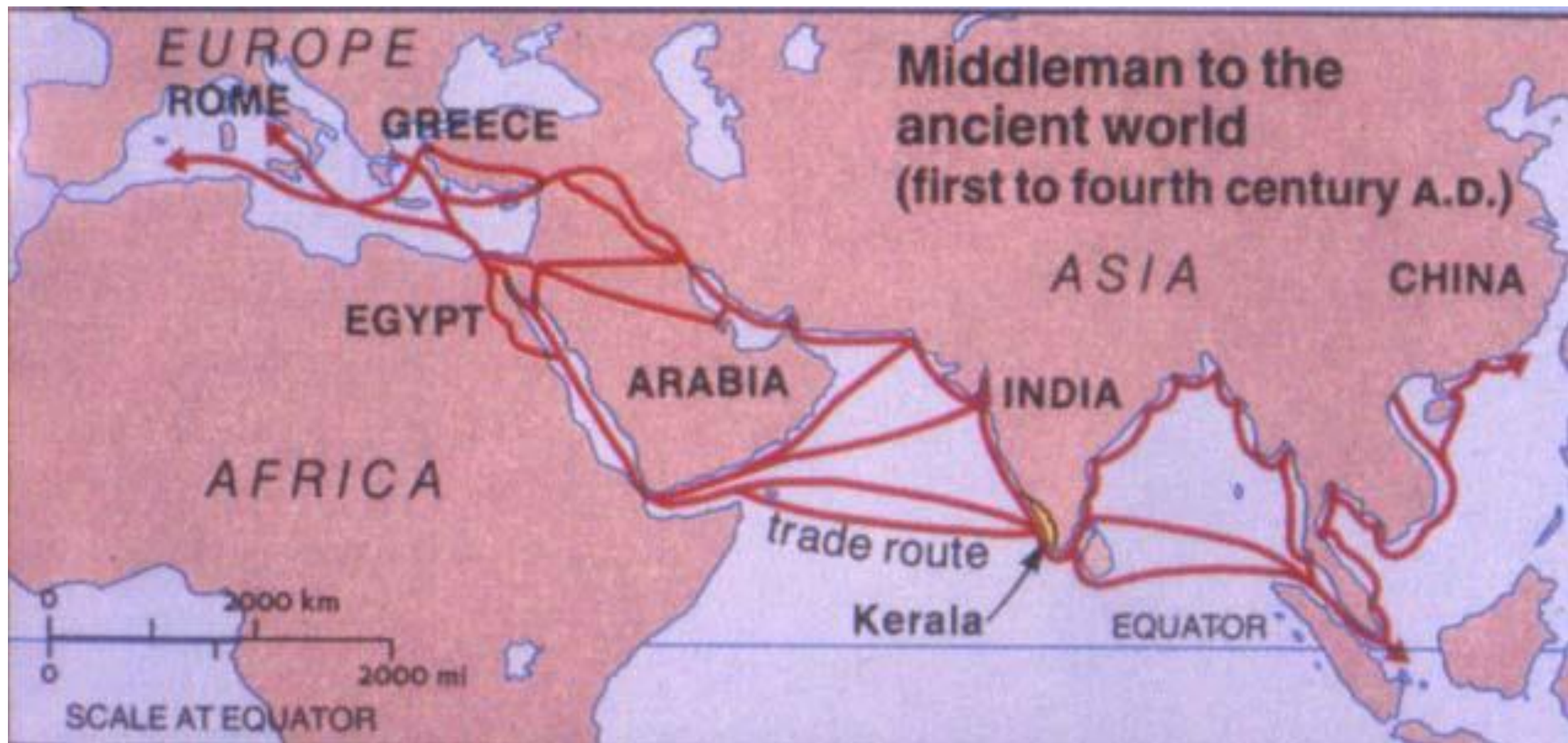


## **THE SUSHRUTA SMAHITA**

**Ayurveda literally means Science of life and the aim was to *'treat the disease and to preserve the health of the healthy'*.**

**It has been divided in 8 subgroups.**

- |                         |                       |
|-------------------------|-----------------------|
| <b>1. Surgery</b>       | <b>2. Medicine.</b>   |
| <b>3. Ophthalmology</b> | <b>4. ENT</b>         |
| <b>5. Obstetrics</b>    | <b>6. Psychiatry</b>  |
| <b>7. Paediatrics</b>   | <b>8. Toxicology.</b> |



# सुश्रुतसंहिता

SÚSRUTA<sup>1</sup> SAMHITĀ<sup>2,3</sup>

सूत्रस्थानम् ।

SŪTRA—STHĀNA<sup>4</sup>

प्रथमोऽध्यायः ।

Chapter One

1. ORIGIN OF ĀYURVEDA

अथातो वेदोत्पत्तिमध्यायं व्याख्यास्यामः ॥१॥

AYURVEDA = SCIENCE OF LIFE

"... To cure those who are afflicted with the disease and to maintain the health of the healthy..."

## **Chapter 16 of *Sutra-sthana***

**Sushruta Samhita specifically describes the**

***‘reconstruction of lost ear lobe using a Piece of skin which is attached to the cheek and is alive by continuation ‘***

**This is the first ever description of a flap in the world literature!**

**He also describes the cheek (naso-labial) flap to reconstruct defects of nose and cleft lip.**

14.

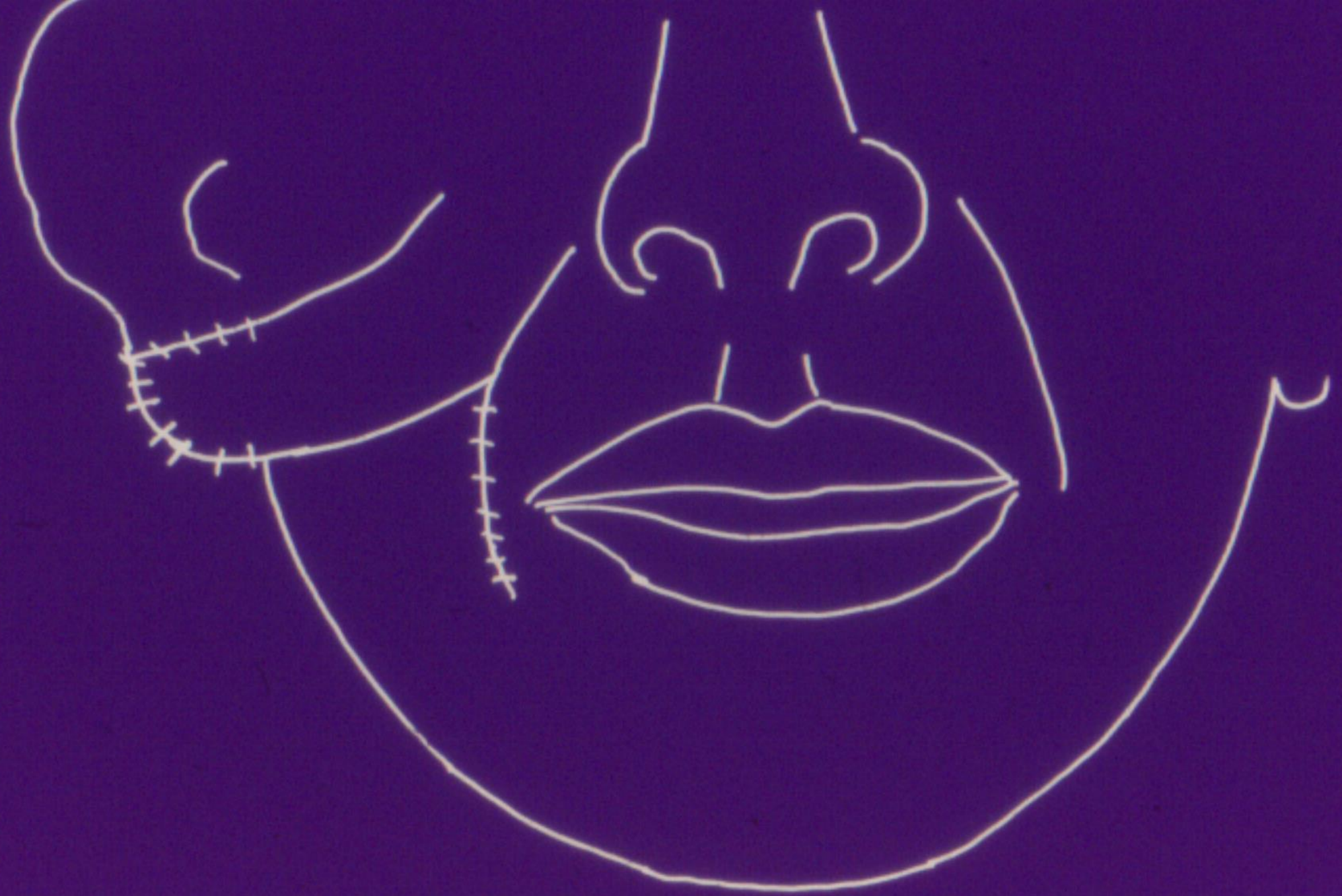
## ROTATION OF PEDICLED SKIN FLAP

गण्डादुत्पाद्य मांसेन सानुबन्धेन जीवता ॥

कर्मपालीमवालेस्तु कुर्यान्निलिख्य शास्त्रवित् ॥ १४ ॥

In the absence of the ear lobule, the expert (plastic surgeon) should elevate a living flap from the cheek<sup>2</sup>, connected at its base and should reconstruct the ear lobule after scraping<sup>3</sup>.





27.20/1—32.

## RHINOPLASTY

27.20/1.

### Introduction

विश्लेषितायास्त्वथ नासिकाया वक्ष्यामि सन्धानविधिं यथावत् ।

Now I would describe the proper method of rhinoplasty when the nose has been cut off.

27.20/2,28. THE PEDICLE FLAP FROM THE CHEEK

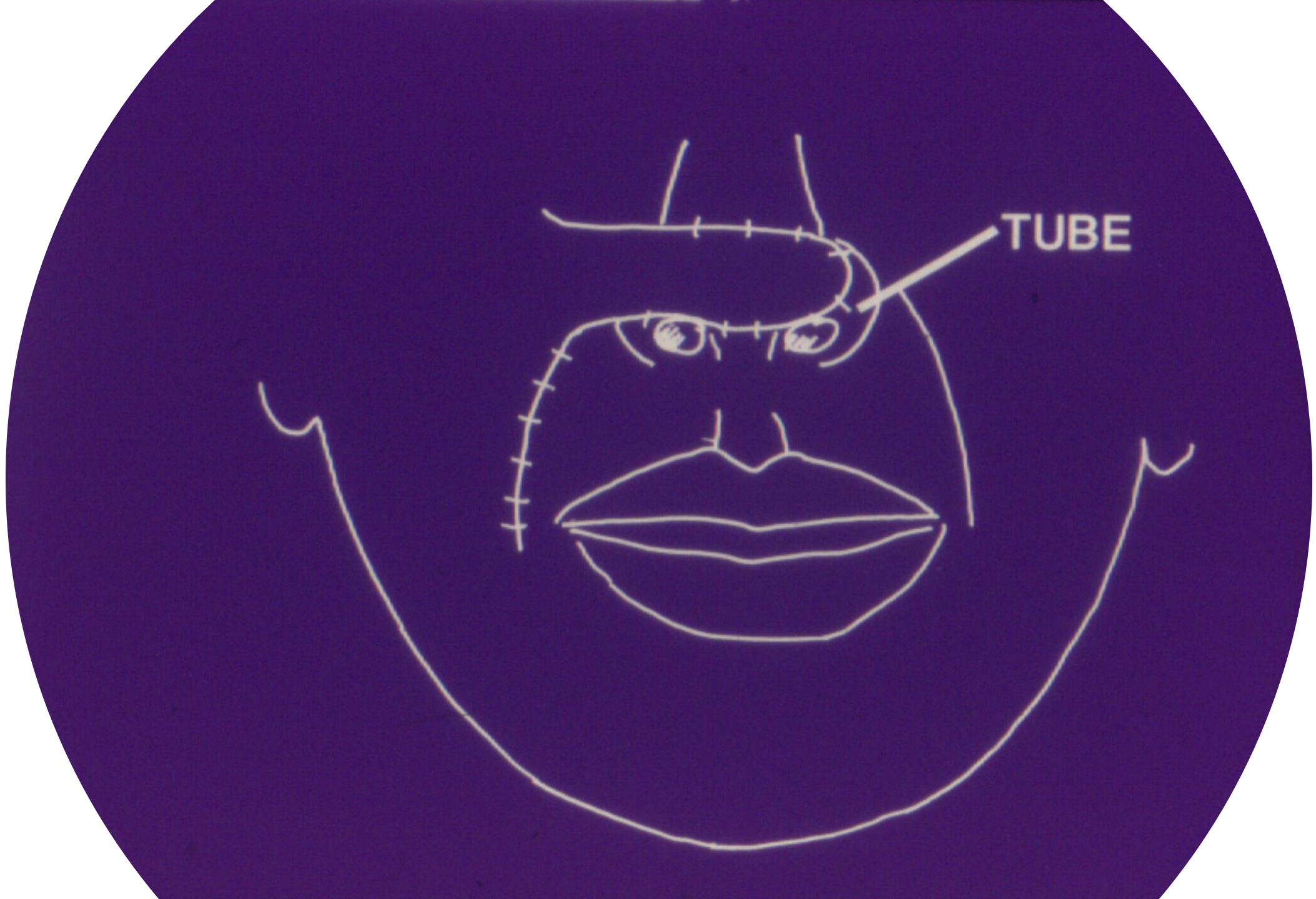
नासाप्रमाणं पृथिवीरुहाणां पत्रं गीहीत्वा त्ववलम्बि तस्य ॥ २७ ॥

तेन प्रमाणेन हि गण्डपार्श्वदित्कृत्य बद्धं त्वथ नासिकाग्रम् ।

द्विलिख्य चाशु प्रतिसंदधीत तत् साधुबन्धैर्भिषगप्रमत्तः ॥ २८ ॥



Taking a tree leaf of the size of the nose and placing it (on the cheek), a flap should be raised of the same size from the side of the cheek maintaining its continuity; it should then be approximated to the front part of the nose after (making the nose raw) and then the vigilant surgeon should quickly suture the same by the correct technique.



सुसंहितं सम्यगतो यथावन्नाडीद्वयेनाभिसमीक्ष्य वद्ध्वा ।  
 प्रोन्नम्य चैनामवचूर्णयतु पतङ्गयष्टीमधुकाञ्जनैश्च ॥ २९ ॥  
 संछेद्य सम्यक् पिचुना सितेन तैलेन सिञ्चेदसकृत्तिलानाम् ।  
 घृतं च पाय्यः स नरः सुजीर्णो स्निग्धो विरेच्यः स यथोपदेशम् ॥ ३० ॥

Having examined the nose which has been properly sutured and correctly shaped, the same should be fixed by two tubes and elevated. Then, the powder of red sandal wood, *madhūka* and *rasāñjana* should be sprinkled on the nose after elevating it.

It should be dressed properly with white cotton and should be soaked repeatedly with sesamum oil; *ghṛta* should be administered to the patient after the previous meal has been properly digested and a purgative should be prescribed as instructed.

31.

## FINAL APPEARANCE

रूढं च सन्धानमुपागतं स्यात्तदधशेषं तु पुनर्निकृन्तेत् ।

हीनां पुनर्वर्धयितुं यत्नेत समां च कुर्यादतिवृद्धमांसाम् ॥ ३१ ॥

When the graft has properly taken up, base of the same should be snapped. The short graft should be elongated and the long graft should be made uniform.





**Sushruta describes the instruments in chapters 7-9 of the Sushruta Samhita. He makes detailed observation on the metal used for instruments, their shape according to usage.**

**In verse 14 of Chapter 8, he says:**

*‘when the blade of the knife has been made so sharp that it can slice the hair into two, the different parts of the instrument have been fixed properly, the adjustments regarding the measurements have been done correctly and the instrument has been held in the proper way only then it should be used in surgical operations’.*



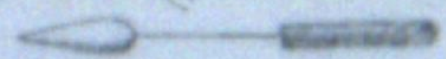
1. Ardhachara shastra.



2. Atimukha shastra.



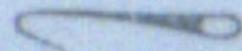
9. Kritharika shastra.



10. Kushapatra shastra.



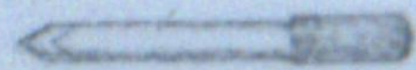
3. Ara shastra.



4. Badisha shastra.



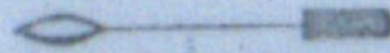
11. Mandalagra shastra.



12. Mudrika shastra.



5. Dantashanku shastra.



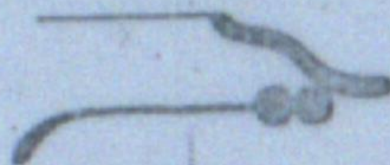
13. Nakha shastra.



14. Shararimukha shastra.



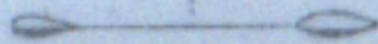
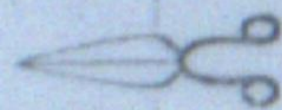
7. Karapatra shastra.



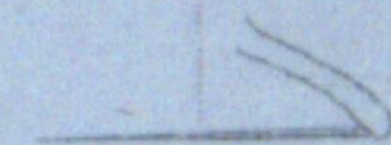
16. Trikurchaka shastra.



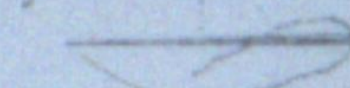
17. Utpalapatra shastra.



6. Eshani shastra.

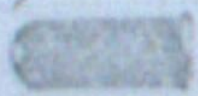


18. Vetaspatra shastra.



15. Suchi shastra.





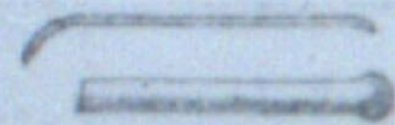
1. Anguli yatra.



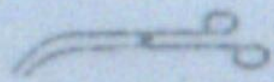
2. Arsho yatra.



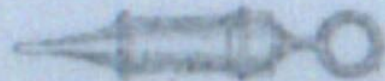
15. Shamaptra yatra.



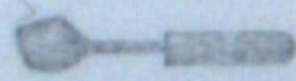
16. Shalaka yatra.



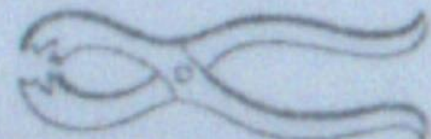
3. Ashmaryaharna yatra.



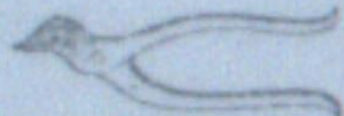
4. Hasti yatra.



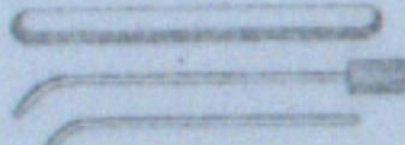
17. Shatapanka mukha.



18. Sushamukha yatra.



5. Bhraugamukha yatra.



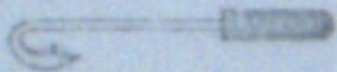
6. Darvyakritishaleka.



19. Shvanamukha yatra.



20. Shanku yatra.



7. Garbhashanku yatra.



8. Jalodar yatra.



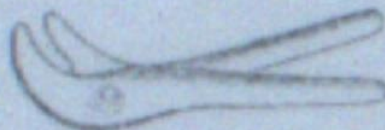
21. Suhi yatra.



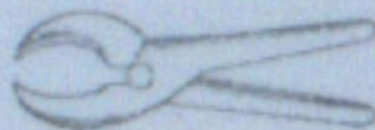
22. Tala yatra.



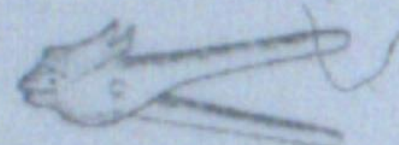
9. Kakamukha yatra.



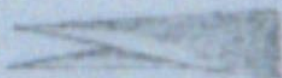
10. Kankamukha yatra.



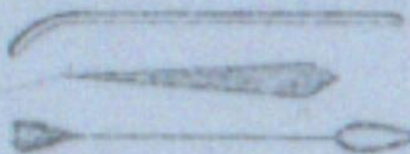
23. Terakshumukha.



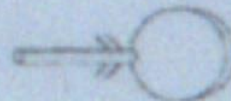
24. Vrikamukha yatra.



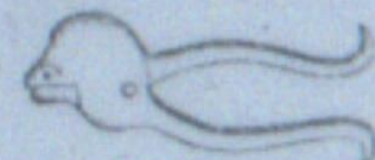
11. Muehoti yatra.



12. Nadi yatra.



25. Vrisaprasahasea yatra.



26. Vyaghramukha yatra.

नाडीयोगं विनौष्ठस्य नासासन्धानवद्विधिम् ।

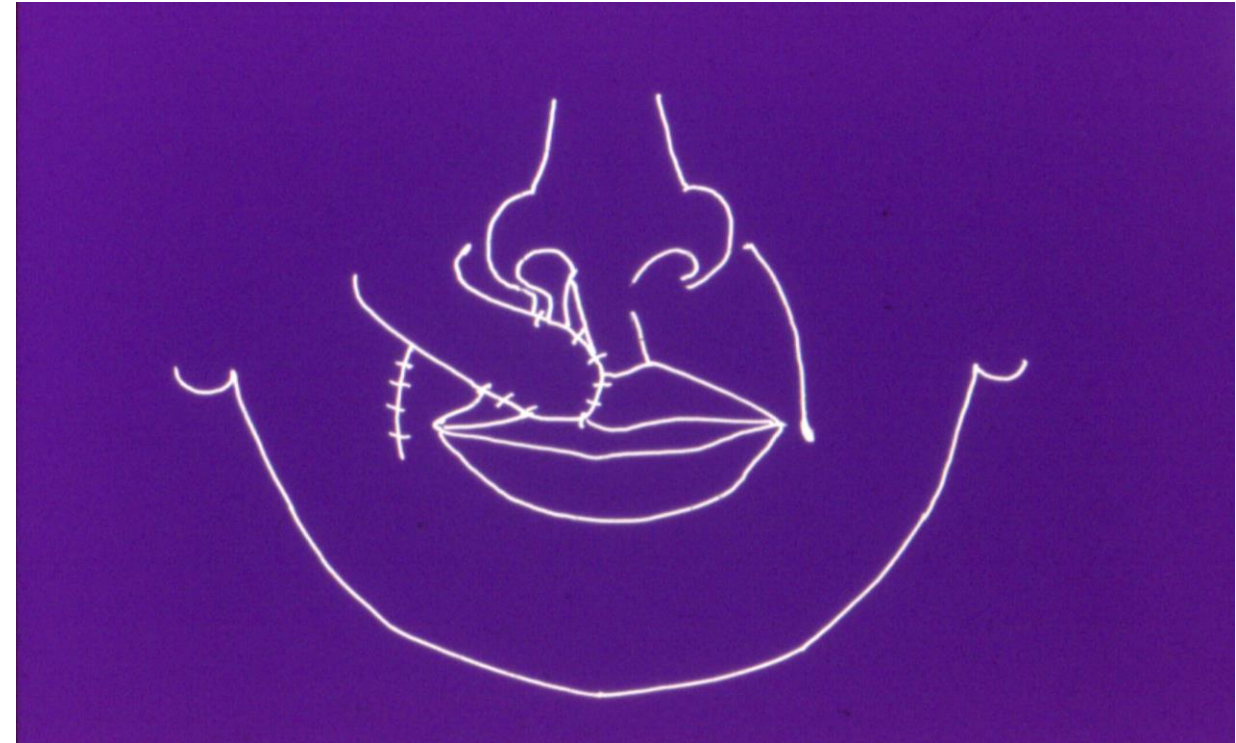
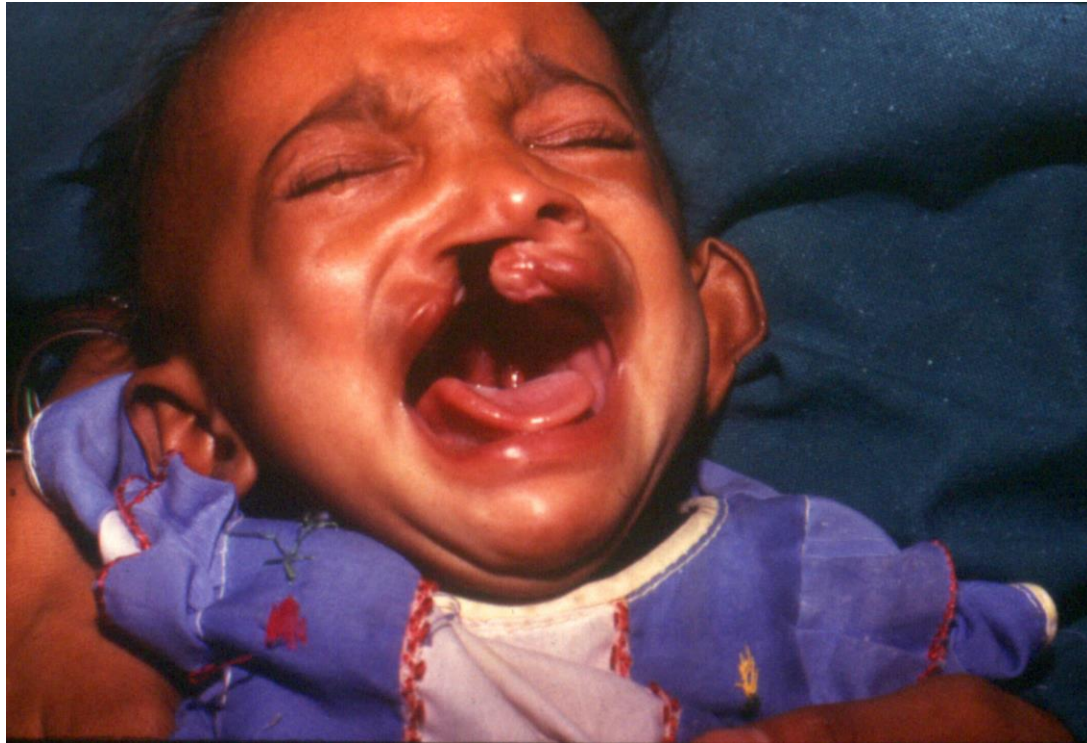
य एवमेव जानीयात् स राज्ञः कर्तुमर्हति ॥ ३२ ॥

Plastic surgery of the harelip should be done similar to that of rhinoplasty but without the use of two tubes. Only he who knows these (techniques) is entitled to be the royal physician.

इति सुश्रुतसंहितायां सूत्रस्थाने कर्णव्यधवन्धविधिर्नाम षोडशोऽध्यायः ॥ १६ ॥

Thus ends the sixteenth chapter entitled 'The Techniques of Ear Puncture and Plastic Surgery' of *Sūtra-sthāna* of *Suśruta Saṁhitā*.

# Cleft lip Surgery by Sushruta







Nice to have recognition...!!

Awarded World Leader of  
Plastic Surgery

Wall of Honour, The Royal  
Society of Medicine, London

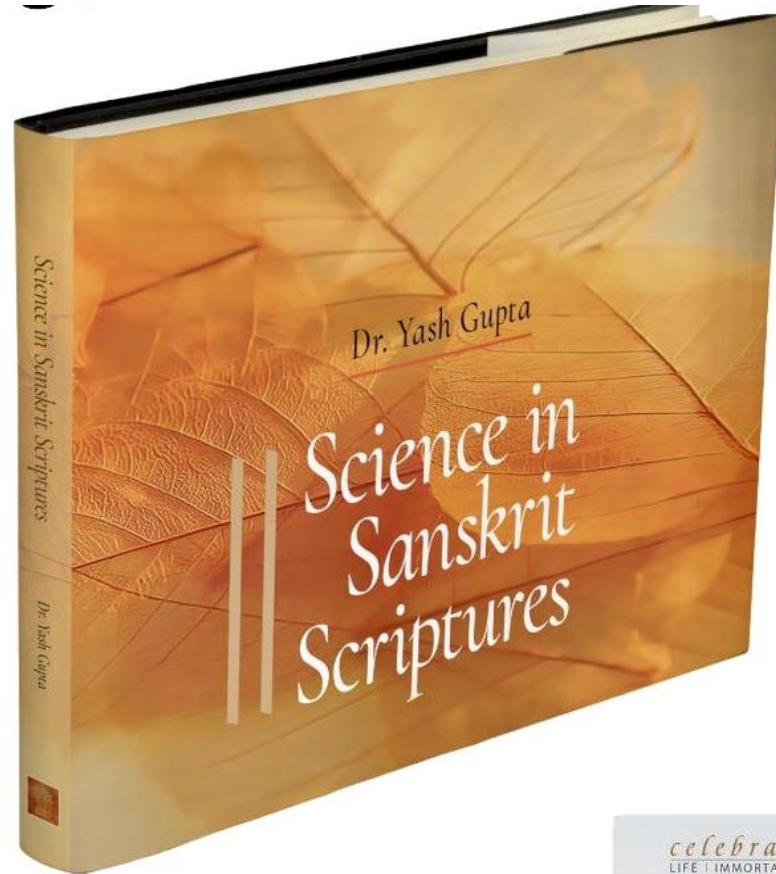
Visiting International  
Professor

Alumnus Harvard Leadership  
Program





# Thank You!



celebrate  
LIFE | IMMORTALITY