

BEYOND THE INCISION: REVISITING SURGICAL ONCOLOGY THROUGH THE PRINCIPLES OF *SUSHRUTA* – A NARRATIVE REVIEW

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ABSTRACT

Surgical oncology is a specialized branch of surgery dedicated to the prevention, diagnosis, staging, treatment, and palliation of cancer through operative interventions. Although remarkable technological advances such as minimally invasive surgery, robotic-assisted procedures, and image-guided techniques have transformed modern oncological surgery, the fundamental principle remains the complete removal of diseased tissue while preserving normal function. Long before the advent of modern oncology, *Acharya Sushruta* described detailed surgical principles for the management of *Arbuda* (tumorous growths), emphasizing *Chedana* (excision), *Ashesha Doṣa Chedana* (complete removal of the diseased tissue), and measures to prevent recurrence. These principles demonstrate noteworthy conceptual parallels with the objectives of contemporary

oncologic surgery. This review discusses the evolution, principles, classification, and recent advances in surgical oncology and examines them in the light of Ayurvedic surgical concepts described in the *Sushruta Samhita*. Rather than establishing direct equivalence between ancient and modern practices, the review highlights conceptual similarities that continue to hold clinical relevance. Integrating classical Ayurvedic surgical wisdom with contemporary oncological principles may provide a broader understanding of surgical decision-making and reinforce the enduring significance of *Sushruta's* contributions to surgery.

KEYWORDS: Surgical oncology, *Arbuda*, *Chedana*, *Sushruta Samhita*, Surgical margins,

Minimally invasive surgery.

INTRODUCTION

Cancer continues to be one of the leading causes of morbidity and mortality worldwide, posing a significant burden on healthcare systems. Although systemic therapies such as chemotherapy, targeted therapy, immunotherapy, and radiation therapy have considerably improved patient outcomes, surgery remains the cornerstone of treatment for most localized solid malignancies. In addition to its curative role, surgery contributes to cancer diagnosis, staging, symptom palliation, reconstruction, and supportive care. The evolution of surgical oncology from extensive radical procedures to precision-guided, organ-preserving operations reflects the continuous advancement of surgical science while maintaining the primary objective of achieving complete tumour removal with minimal functional impairment.

Surgical oncology has therefore evolved beyond a technical procedure of tumour excision into a multidisciplinary specialty integrating surgeons, medical oncologists, radiation oncologists, radiologists, pathologists, anaesthesiologists, rehabilitation specialists, and palliative care teams.^[1] Contemporary oncological surgery emphasizes evidence-based decision-making, multidisciplinary planning, preservation of quality of life, and individualized patient care. Advances such as laparoscopic surgery, robotic-assisted surgery, sentinel lymph node biopsy, fluorescence-guided surgery, and enhanced recovery protocols have further refined oncological outcomes while reducing postoperative morbidity.

Centuries before the development of modern oncological surgery, *Acharya Sushruta* described detailed surgical principles for the management of localized pathological swellings under the concept of *Arbuda*. Among the various treatment modalities, *Chedana* (surgical excision) occupies a central role in the management of suitable lesions. *Sushruta* further emphasized *Ashesha Doṣa Chedana*, implying complete removal of diseased tissue to prevent recurrence, a principle that conceptually resembles the modern oncological objective of achieving tumour-free surgical margins. Additional surgical measures such as *Lekhana*, *Agnikarma*, and *Sandhana* further demonstrate the comprehensive nature of Ayurvedic surgical science.

Although significant differences exist between the pathological concepts of *Arbuda* and modern cancer, several surgical principles described in the *Sushruta Samhita* exhibit remarkable conceptual similarities with present-day surgical oncology. Exploring these

similarities does not imply direct equivalence but rather facilitates a deeper appreciation of classical surgical knowledge in the context of contemporary practice.

The present review aims to discuss the basic principles, classifications, and recent advances in surgical oncology while critically examining their conceptual relevance through the Ayurvedic principles of *Arbuda Chikitsa*, particularly *Chedana*, as described by Acharya Sushruta.

Surgical Oncology: Concept and Scope

Surgical oncology is a specialized discipline of surgery concerned with the prevention, diagnosis, staging, treatment, palliation, and rehabilitation of patients with cancer through operative interventions.^[2] It forms one of the three principal pillars of modern cancer management, alongside medical oncology and radiation oncology.^[3] While surgery remains the only potentially curative treatment for most localized solid malignancies, its role has expanded considerably with advances in imaging, molecular diagnostics, perioperative care, and minimally invasive techniques.

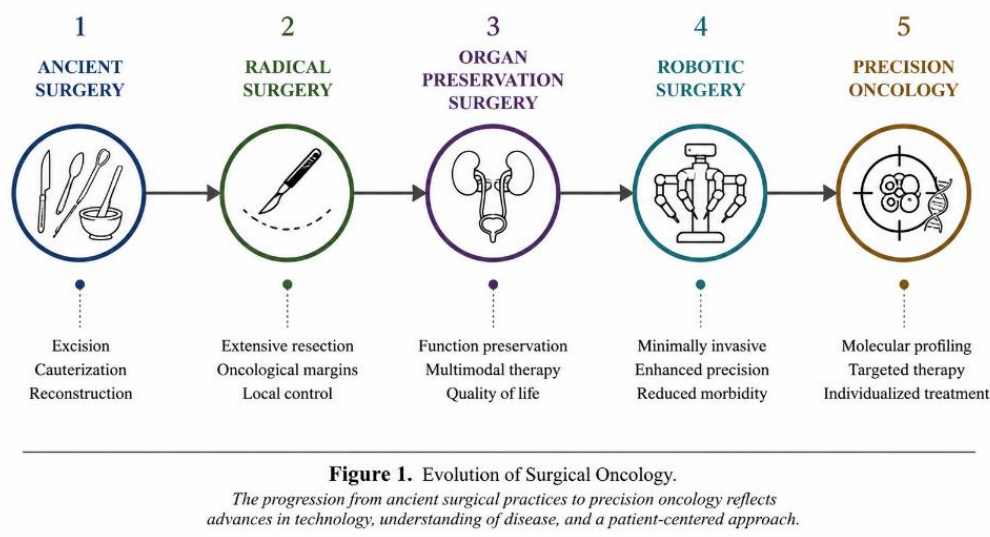
The objectives of surgical oncology extend beyond tumour excision. Surgical procedures are frequently employed to establish a definitive diagnosis through tissue biopsy, accurately stage the disease, achieve complete tumour removal with adequate oncological margins, restore anatomical and functional integrity through reconstructive procedures, relieve symptoms in advanced malignancies, and facilitate systemic therapies through supportive interventions. Consequently, the modern surgical oncologist functions as an integral member of a multidisciplinary team comprising medical oncologists, radiation oncologists, radiologists, pathologists, anaesthesiologists, rehabilitation specialists, and palliative care physicians.^[4] Such collaborative decision-making ensures individualized treatment planning aimed at maximizing survival while preserving function and quality of life.

A fundamental principle governing oncological surgery is complete excision of the tumour along with an adequate margin of uninvolved tissue to minimize the risk of local recurrence. The concept of margin-negative (R0) resection has therefore become the gold standard in curative oncological surgery.^[5] Appropriate lymph node assessment, preservation of vital neurovascular structures whenever oncologically feasible, meticulous tissue handling, and adherence to established surgical planes further contribute to improved oncological outcomes.^[6] These principles have remained consistent despite continuous technological

advancements in surgical practice.

The evolution of surgical oncology reflects a gradual transition from highly radical procedures towards precision-based and function-preserving operations. Historical procedures such as Halsted's radical mastectomy have largely been replaced by breast-conserving surgery combined with adjuvant therapies whenever appropriate.^[7] Similarly, advances such as organ-preserving approaches, sentinel lymph-node biopsy, laparoscopic and robotic-assisted surgery^[8], fluorescence-guided surgery^[9], and enhanced recovery protocols have contributed to reduced surgical morbidity while maintaining oncological outcomes in appropriately selected patients. These developments illustrate that contemporary surgical oncology aims not only to eradicate disease but also to optimize postoperative recovery, functional outcomes, and long-term quality of life.

Thus, modern surgical oncology represents a dynamic specialty that integrates scientific evidence, technological innovation, multidisciplinary collaboration, and patient-centred care. Despite remarkable advancements, its fundamental objective remains unchanged: complete removal of the diseased tissue while minimizing recurrence and preserving normal function.



Arbuda in Ayurveda: Classical Concepts Relevant to Surgical Oncology

Concept of Arbuda

The earliest and most comprehensive descriptions of surgically manageable tumorous swellings are found in the *Sushruta Samhita*. Among these, *Arbuda* is described as a large, deep-seated, localized swelling resulting from the vitiation of *Doṣas*, particularly involving

Māṃsa and *Rakta*.^[10] It is characterized by a gradually enlarging, firm, immobile mass that persists for a prolonged period. Owing to its progressive nature and limited tendency for spontaneous resolution, *Arbuda* has traditionally been regarded as one of the major surgical disorders requiring operative management.

Although *Arbuda* should not be considered synonymous with modern cancer, several of its classical clinical characteristics resemble those observed in neoplastic lesions. Therefore, *Arbuda* may be understood as an Ayurvedic pathological entity that shares certain conceptual and clinical similarities with selected tumour conditions described in contemporary medicine.

Nidana and Samprapti

According to Ayurveda, *Arbuda* develops due to the persistent vitiation of *Doṣas*, predominantly *Kapha* and *Vāta*, acting upon susceptible tissues such as *Māṃsa* and *Rakta*. The resulting derangement in tissue metabolism leads to abnormal localized tissue proliferation, producing a gradually enlarging mass. The chronicity of the disease, slow progression, and deep tissue involvement distinguish *Arbuda* from many acute inflammatory swellings.

From a modern perspective, this description conceptually resembles uncontrolled localized tissue proliferation, although the underlying pathological mechanisms differ substantially. Hence, any comparison should be interpreted as a conceptual correlation rather than a direct pathological equivalence.

Classical Clinical Features^[11]

Acharya Sushruta describes *Arbuda* with characteristic clinical features including:

- ***Vṛtta*** – rounded or well-defined swelling.
- ***Sthira*** – fixed and immobile mass.
- ***Māṃsopacaya*** – excessive localized tissue overgrowth.
- ***Ciravṛddhi*** – slow and progressive enlargement.
- ***Alpa Vedanā or Manda Vedanā*** – minimal pain during the early stages.
- ***Gambhīra*** – deep-seated lesion.
- ***Apāka*** – absence of suppuration in uncomplicated lesions.

Many of these features resemble the presentation of certain benign and malignant neoplasms, particularly the gradual development of a firm, localized mass. However, the classical description encompasses a broader pathological spectrum and should not be interpreted as

describing malignancy alone.

Chikitsā Siddhānta

The management of *Arbuda* described in the *Sushruta Samhita* is primarily surgical. Among the various treatment modalities, *Chedana* (complete surgical excision) occupies the foremost position whenever the lesion is considered operable. Sushruta further emphasizes complete removal of the diseased tissue (*Aśeṣa Doṣa Chedana*) to minimize the possibility of recurrence. Other surgical measures, including *Lekhana*, *Agnikarma*, *Kṣāra Karma*, and *Sandhāna*, are described in appropriate clinical situations depending on the nature, location, and extent of the lesion.

These principles demonstrate the comprehensive surgical approach advocated by Sushruta, encompassing not only tumour removal but also local disease control, prevention of recurrence, and restoration of tissue integrity. Although contemporary oncological surgery is founded on entirely different pathological and scientific principles, these classical concepts provide an interesting framework for comparative discussion.

Chedana in Sushruta and Its Relevance to Modern Surgical Oncology

Among the various treatment modalities described for *Arbuda*, Acharya Sushruta gives prime importance to ***Chedana*** (surgical excision) whenever the lesion is considered amenable to operative management. Surgery was advocated not merely to reduce the size of the swelling but to eradicate the diseased tissue completely, thereby preventing its further progression. This emphasis reflects the advanced understanding of surgical disease management in classical Ayurveda and establishes *Chedana* as the principal therapeutic intervention for localized pathological masses.^[12]

A significant surgical principle described by Sushruta is *Aśeṣa Doṣa Chedana*^[13], which advocates complete excision of the diseased tissue without leaving any residual pathological component. The rationale behind this approach is clearly reflected in the classical description that incomplete removal predisposes to recurrence of the disease. Thus, Sushruta emphasizes meticulous surgical planning and thorough excision to achieve sustained disease control. Although the concept is explained in terms of *Doṣa* and *Duṣya*, the underlying surgical objective is the complete elimination of the pathological tissue.

This principle exhibits an interesting conceptual similarity to one of the fundamental

objectives of modern surgical oncology—**margin-negative (R0) resection**. In oncological surgery, curative treatment depends on complete removal of the tumour with histologically negative surgical margins, indicating the absence of tumour cells at the cut edge. Failure to achieve adequate margins increases the risk of residual disease and local recurrence, often necessitating re-excision or additional adjuvant therapy. While the pathological basis differs considerably from the Ayurvedic understanding, both systems emphasize the importance of complete removal of diseased tissue to minimize recurrence.

The concept of recurrence also provides an important point for comparative discussion. *Sushruta* attributes recurrence primarily to incomplete excision of the diseased tissue (*Aśeṣa Doṣa Chedana* not being achieved), whereas contemporary oncology recognizes residual microscopic disease, tumour biology, lymphovascular invasion, and molecular characteristics as major contributors to local recurrence.^[14] Thus, although the explanatory mechanisms differ, both traditions acknowledge that incomplete surgical clearance adversely influences long-term outcomes.

Sushruta's surgical philosophy also demonstrates an appreciation for preserving healthy tissue while removing the diseased portion. Classical descriptions of operative techniques emphasize careful dissection, precise excision, haemostasis, and appropriate wound management. Similarly, modern oncological surgery has progressively evolved from radical resections towards organ-preserving procedures whenever oncological safety can be maintained. Breast-conserving surgery, limb-salvage surgery, sphincter-preserving rectal surgery, and nephron-sparing surgery exemplify this transition.^[15-16] The shared objective is to achieve adequate disease clearance while maintaining function and improving postoperative quality of life.

Certain situations described in Ayurveda also suggest alternatives when complete excision is not immediately feasible. Procedures such as *Lekhana*, *Kṣāra Karma*, and *Agnikarma* have been recommended in selected conditions depending on the nature and extent of the lesion. Although these interventions cannot be considered equivalent to modern oncological procedures, they reflect an individualized surgical approach based on disease characteristics. Similarly, modern surgical oncology employs debulking surgery^[17], ablative techniques^[18], and palliative procedures^[19] in carefully selected patients when complete tumour removal is not possible.

It is important to recognize that these comparisons represent **conceptual parallels rather**

than direct scientific equivalence. Modern surgical oncology is based on advances in tumour biology, histopathology, molecular diagnostics, imaging, and evidence-based clinical research, whereas Ayurvedic principles are rooted in a distinct philosophical and pathological framework. Nevertheless, the enduring surgical principles advocated by *Sushruta*—careful patient selection, complete removal of diseased tissue whenever feasible, meticulous operative technique, prevention of recurrence, and restoration of function—continue to resonate with several objectives of contemporary oncological surgery. Appreciating these conceptual similarities enriches the understanding of both systems while preserving their individual scientific identities.



Figure 2: Sushruta's Surgical Philosophy.

Evidence-Based Perspectives and Clinical Correlations

The remarkable progress achieved in modern surgical oncology has been driven by advances in tumour biology, imaging, histopathology, anaesthesia, and evidence-based surgical practice. Nevertheless, several fundamental surgical principles described by *Acharya Sushruta* continue to demonstrate noteworthy conceptual relevance. Although these principles originate from entirely different epistemological frameworks, comparative analysis highlights enduring surgical philosophies that transcend time.

One of the most important objectives of modern oncological surgery is the achievement of **margin-negative (R0) resection**, where the tumour is completely excised with histologically tumour-free margins. Numerous clinical studies have demonstrated that negative surgical margins significantly reduce the risk of local recurrence and improve long-term oncological outcomes in several solid malignancies. Interestingly, *Sushruta* emphasized *Aśeṣa Doṣa Chedana*, advocating complete removal of the diseased tissue to prevent recurrence. While the scientific rationale differs, both systems recognize complete surgical clearance as an essential determinant of successful treatment.

Modern oncological practice also recognizes that inadequate tumour clearance frequently necessitates **re-excision** to achieve acceptable oncological margins. Residual microscopic

disease is considered an important cause of local recurrence despite advances in adjuvant therapies. Classical Ayurvedic literature similarly cautions against incomplete excision of *Arbuda*, emphasizing meticulous removal of the lesion. This conceptual similarity reflects a common surgical objective of minimizing residual disease through appropriate operative management.

Another notable development in contemporary surgical oncology is the transition from radical extirpative procedures towards **organ-preserving surgery** whenever oncological safety can be maintained. Although such procedures have no direct classical equivalent, *Sushruta* consistently advocates precise surgical techniques, careful dissection, and protection of healthy tissues during operative interventions. These principles demonstrate an early appreciation for balancing disease eradication with preservation of function.

Not all concepts in modern surgical oncology have parallels in Ayurveda. Techniques such as sentinel lymph node biopsy, molecular tumour profiling, fluorescence-guided surgery, robotic-assisted surgery, and precision oncology represent advances that have emerged from modern scientific research. Recognizing these differences is equally important, as it preserves the independent scientific identity of both systems and avoids inappropriate historical equivalence.

Similarly, multidisciplinary tumour boards^[20], neoadjuvant chemotherapy, immunotherapy, targeted therapy, and evidence-based postoperative surveillance constitute integral components of present-day cancer management that extend beyond the scope of classical Ayurvedic surgical literature. Therefore, comparisons between Ayurveda and modern oncology should be interpreted as conceptual rather than literal or scientific equivalence.

The enduring relevance of *Sushruta*'s surgical teachings lies not in technological similarity but in the universality of certain operative principles, including appropriate patient selection, meticulous surgical technique, complete excision whenever feasible, prevention of recurrence, and restoration of function. These principles continue to resonate with the objectives of contemporary surgical oncology and illustrate the timeless value of classical Ayurvedic surgical wisdom.

Table 1: Modern Evidence vs Classical Principle.

Modern Evidence	Classical Principle	Interpretation
R0 resection reduces local recurrence	<i>Aśeṣa Doṣa Chedana</i>	Conceptual similarity in complete disease clearance
Positive surgical margins require re-excision	Incomplete <i>Chedana</i> predisposes to recurrence	Parallel emphasis on complete excision
Organ-preserving oncologic surgery	Preservation of healthy tissue during <i>Śāstra Karma</i>	Shared objective of functional conservation
Sentinel lymph node biopsy ^[21]	No direct equivalent	Represents an advancement unique to modern oncology

DISCUSSION

Curative Surgery: *Chedana* and the Principle of Complete Disease Clearance

Curative surgery is undertaken with the objective of achieving complete removal of a localized malignant lesion with adequate oncological margins and thereby attaining long-term disease control. It is primarily indicated in patients with localized disease in whom complete surgical clearance is technically feasible and clinically appropriate. For example, localized carcinoma of the colon without distant metastasis may be managed by oncologically appropriate colectomy with regional lymph node assessment.^[22] Thus, the fundamental objective of curative oncological surgery is not merely reduction in tumour size, but complete eradication of the identifiable primary disease while preserving function as far as possible.

A comparable surgical principle can be identified in the classical descriptions of *Chedana* by Acharya Sushruta. In the context of selected pathological lesions, *Sushruta* states that *Chedana* is indicated in conditions that are *Apāka* (non-suppurative), *Kaṭhina* (hard or firm), and *Sthira* (fixed or immobile). The accompanying commentary of Dalhaṇa explains *Apāka* in relation to lesions without suppuration and interprets *Kaṭhina* and *Sthira* as firm and immobile lesions, respectively. The classical description therefore establishes appropriate lesion characteristics as an important consideration before undertaking excision.

The principle of *Chedana* may be considered conceptually relevant to modern curative oncological surgery, particularly with regard to the objective of removing the pathological tissue completely. In contemporary oncology, this objective is assessed more precisely through histopathological examination of the resection specimen and the status of the surgical margins. A margin-negative or R0 resection indicates that no tumour cells are identified at the resection margin and is an important determinant of adequate local disease control in appropriately selected solid tumours. Thus, while Sushruta's description and modern oncological surgery arise from fundamentally different pathological frameworks, both

emphasize appropriate case selection and removal of the diseased tissue as essential components of successful surgical treatment.

Prevention of Recurrence: Residual Disease and the Need for Complete Excision

The importance of complete excision is further emphasized by Sushruta in relation to the prevention of recurrence. In the context of *Arbuda*, he states that lesions in which the *Doṣas* are left behind may recur rapidly and emphasizes that the diseased tissue should therefore be removed completely. The classical verses, “सशेषदोषाणि हि योऽर्बूदानि करोति तस्याशु पुनर्भवन्ति | तस्मादशेषाणि समुद्धरेत्तु हन्युः सशेषाणि यथा हि वह्निः ||”, convey the principle that residual pathological material may result in recurrence and therefore complete removal is essential. This principle has an important conceptual parallel in contemporary surgical oncology, where residual microscopic or macroscopic tumour following an incomplete resection may contribute to local recurrence. A positive surgical margin, indicating the presence of tumour cells at the resection margin, may therefore necessitate further treatment, including re-excision in appropriately selected cases.

Preventive or prophylactic surgery is performed to reduce the risk of developing cancer in individuals who have a substantially increased risk because of a hereditary predisposition, premalignant condition, or other established risk factors. Unlike curative surgery, which aims to eradicate an already established malignancy, prophylactic surgery is undertaken before invasive cancer develops. The extent of surgery depends on the underlying risk, the organ involved, the availability of effective surveillance, and the potential benefits and morbidity associated with the procedure.

Restoration of Form and Function

Restoration of form and function is an important aspect of surgical oncology, particularly following curative or ablative procedures where restoration of the anatomical appearance and functional capacity of the affected body part is required. This is achieved through reconstructive surgery, which employs techniques such as tissue flaps, implants, prostheses, and subsequent functional rehabilitation. Flap procedures involve the transfer of tissue from one part of the body to another to restore the defect; for example, the transverse rectus abdominis myocutaneous (TRAM) flap transfers skin, subcutaneous tissue, and a portion of the rectus abdominis muscle for breast reconstruction following mastectomy.^[23] The principles of tissue reconstruction are described by *Ācārya Suśruta* under *Sandhāna Vidhi*^[24],

including reconstruction of the nose (*Nāsā-sandhāna*), lip (*Oṣṭha-sandhāna*), and ear (*Karṇa-sandhāna*). These descriptions demonstrate the application of reconstructive techniques for restoration of anatomical continuity and function, which finds application in modern oncological surgery for restoration of defects following tumour excision and other cancer-directed procedures.

Individualized Surgical Decision Making

Individualized surgical decision-making is an essential component of modern surgical oncology, wherein the choice and extent of surgery are determined through multidisciplinary team (MDT) assessment, considering patient-related factors, tumour stage, resectability, anticipated morbidity, and the risks and benefits of complete tumour removal. This approach is reflected in procedures such as debulking surgery, in which only a portion of a malignant tumour is removed when complete excision may be technically difficult or may result in unacceptable injury to adjacent vital organs or tissues. Debulking is commonly employed in advanced ovarian cancer and other selected malignancies where reduction of tumour burden is considered more appropriate than attempting complete resection. A sequential approach to reducing a lesion when complete removal is not feasible is also described in the *Sushruta Samhita*. Suśruta describes the application of a *lepa prepared from Niṣpāva, Piṇyāka and Kulattha kalka, combined with māṃsa and dadhi-mastu*, following which *Krimi* and *Makṣikā* are employed for reduction of the lesion. When only a small portion remains after the action of *Krimi*, *Lekhana* is advised, followed subsequently by *Agni Karma*.^[25] Thus, the description presents a stepwise approach involving initial local application, reduction of the lesion, removal of the residual portion by *Lekhana*, and subsequent *Agni Karma*, demonstrating the importance of adapting the extent and method of intervention according to the clinical condition and feasibility of complete removal.

Future Directions

The interface between classical Ayurvedic surgical principles and contemporary surgical oncology offers several avenues for future research. A systematic re-reading of the *Sushruta Samhita* using contemporary surgical concepts may help identify clinically relevant principles without assuming direct equivalence between classical terminology and modern pathological entities. Particular attention may be given to concepts such as *Chedana*, *Aśeṣa Doṣa Chedana*, *Lekhana*, *Sandhāna*, and principles of wound management, followed by critical evaluation of their clinical applicability. Such textual reinterpretation should be supported by

authentic classical sources and commentaries and should distinguish clearly between the original textual meaning and modern clinical interpretation. The continued recognition of Sushruta's contribution to surgical science in modern historical literature further supports the value of such systematic scholarship.

Future research should also move beyond textual comparison towards concept-based and hypothesis-driven research. Rather than attempting to prove that an Ayurvedic concept is identical to a modern biomedical entity, studies may first define the classical concept precisely and subsequently investigate its observable clinical characteristics, potential mechanisms, and measurable outcomes using appropriate contemporary methodologies. This approach is particularly important in Ayurveda research, where differences in terminology and epistemological frameworks can make direct one-to-one translation inappropriate. Recent discussions on Ayurvedic research have similarly emphasized the need for stronger evidence-generation methods and hypothesis-driven research while retaining the conceptual vocabulary of Ayurveda.^[26]

There is also scope for strengthening integrative surgical education for Ayurvedic postgraduate trainees. Familiarity with contemporary oncological principles, including tumour staging, multidisciplinary decision-making, surgical margins, perioperative care, and advances in minimally invasive surgery, can enhance the clinical understanding of Ayurvedic surgical principles when taught alongside appropriate textual sources. Conversely, structured exposure to classical surgical concepts may encourage contemporary surgical learners to appreciate the historical and philosophical development of surgery. However, integration should be undertaken as a critical dialogue between two distinct knowledge systems rather than as an attempt to merge concepts indiscriminately. Recent literature on Ayurveda education has highlighted both the potential benefits and the epistemological challenges involved in integrating Ayurveda with contemporary biomedical sciences.^[27]

An important priority for future scholarship is therefore to avoid forced equivalence. Concepts such as *Arbuda* should not be categorically equated with cancer, and *Aśeṣa Doṣa Chedana* should not be represented as identical to modern R0 resection. Instead, such relationships should be presented as conceptual parallels that generate research questions. Future multidisciplinary studies involving Ayurvedic scholars, surgeons, oncologists, pathologists, and researchers in medical history may help determine which classical surgical principles have demonstrable contemporary relevance and which should remain within their

historical and theoretical context. Such an approach can preserve the integrity of Ayurvedic knowledge while encouraging rigorous investigation of its potential contributions to contemporary surgical science.

CONCLUSION

Although separated by centuries and grounded in distinct medical philosophies, the surgical principles described by *Acharya Sushruta* demonstrate several points of conceptual relevance to contemporary surgical oncology. The classical description of *Chedana*, particularly the emphasis on appropriate selection of lesions and complete removal of the pathological tissue, provides an important basis for comparison with the modern principle of complete oncological clearance. The emphasis on *Aśeṣa* removal and avoidance of residual disease further offers a conceptual parallel to contemporary concerns regarding residual tumour, local recurrence, and the need for re-excision in selected cases. Other aspects of Sushruta's surgical thought, including meticulous operative technique, preservation of healthy structures, restoration of form and function, and individualized surgical decision-making, can similarly be examined in relation to the evolving principles of modern surgery. However, these relationships should be interpreted as conceptual parallels rather than direct equivalences, since *Arbuda*, *Doṣa*, and *Chedana* arise from a distinct Ayurvedic theoretical framework and cannot be equated directly with modern pathological entities or oncological procedures. The relevance of Sushruta's surgical wisdom therefore lies not in demonstrating that ancient surgery anticipated modern oncology, but in recognizing enduring principles of surgical reasoning that remain meaningful across different medical traditions. Future research should build upon this foundation through critical textual scholarship, concept-based investigation, and interdisciplinary research involving Ayurveda and contemporary surgical sciences. Such an approach can preserve the integrity of classical knowledge while objectively exploring its potential relevance to present-day surgical practice.

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