

ANATOMICAL AND CONCEPTUAL STUDY OF PURISHVAHA SROTAS WITH SPECIAL REFERENCE TO ULCERATIVE COLITIS

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ABSTRACT

Srotas are important structural and functional pathways described in Ayurveda for the transport, transformation and elimination of bodily substances. Acharya Caraka describes thirteen major internal Srotas, including Purishvaha Srotas, which is concerned with the processing, transportation and elimination of Purish. Its functional domain may be correlated with the colorectal region, although it should not be considered identical to any single modern anatomical structure. To examine the anatomical and conceptual features of Purishvaha Srotas and explore their possible correlation with ulcerative colitis. A conceptual review was undertaken using the Caraka Samhita and Susruta Samhita, along with contemporary literature concerning gross anatomy, histology, endoscopy and ulcerative colitis. The concepts of Srotas, Purishvaha Srotas, Srotodusti, Kha-vaigunya and Dosa-dusya sammurchana were

examined in relation to contemporary anatomical and pathological findings. The large intestine, comprising the caecum, colon and rectum, performs important functions including water and electrolyte absorption, storage, propulsion and elimination of intestinal contents. Ulcerative colitis is a chronic inflammatory bowel disease characterized predominantly by continuous mucosal inflammation of the colon, usually beginning in the rectum and extending proximally. Endoscopic and histopathological findings include erythema, loss of vascular pattern, friability, bleeding, ulceration, crypt architectural abnormalities, cryptitis, crypt abscesses and chronic inflammatory infiltration. These alterations may be conceptually

interpreted through Srotodusti, Kha-vaigunya and Dosa-dusya sammurchana.

KEYWORDS: *Purishvaha Srotas, Srotas, Srotodusti, Kha-vaigunya*, ulcerative colitis, colon, anatomy, histology, *Ayurveda*.

INTRODUCTION

Ayurveda considers the human body as a dynamic and interconnected system in which structural components, physiological processes and metabolic products are continuously maintained through coordinated pathways. The concept of *Srotas* occupies an important position in this understanding. The word *Srotas* is derived from the verbal root *Sru*, signifying flow, movement, oozing or transportation. Acarya Caraka describes *Srotas* as pathways involved in the movement of various bodily constituents, while emphasizing that the living body contains innumerable channels at gross as well as subtle levels.^[1] The classical concept is broader than the modern anatomical meaning of a duct, vessel or tube. *Srotas* may represent a structural pathway, a functional transport system, or a combined anatomical-functional domain. The classical description therefore encompasses processes of transportation, nourishment, transformation and elimination. The submitted conceptual article similarly emphasizes that *Srotas* participate in movement of nutrients, metabolic products and excretory materials and that alteration in their structural or functional integrity may contribute to disease.

Among the thirteen major internal *Srotas* described by Caraka, *Purishvaha Srotas* is specifically associated with *Purish*, the waste product of gastrointestinal digestion.¹ The classical enumeration places *Purishvaha Srotas* alongside *Mutravaha* and *Swedavaha Srotas* among the principal excretory pathways.

From a contemporary anatomical perspective, the colorectal region is responsible for important functions related to water and electrolyte absorption, concentration and storage of fecal material, propulsion and controlled evacuation. The large intestine consists of the caecum, appendix, ascending colon, transverse colon, descending colon, sigmoid colon, rectum and anal canal. The right colon is predominantly involved in absorption, whereas the distal colon and rectum have an increasingly important role in storage and elimination.^[7]

Ulcerative colitis (UC) is a chronic inflammatory bowel disease predominantly involving the colonic mucosa. The disease characteristically begins in the rectum and may extend

continuously in a proximal direction. Clinical manifestations include increased stool frequency, rectal bleeding, urgency, abdominal discomfort and altered bowel consistency. Modern diagnosis relies on clinical assessment together with endoscopic and histopathological examination.^[3,4]

The relationship between *Purishvaha Srotas* and UC is therefore of particular interest from an anatomical and conceptual perspective. UC affects the same broad anatomical region that performs the functions attributed to the *Purishvaha* system. However, the purpose of such a correlation should not be to force one-to-one equivalence between an Ayurvedic concept and a modern disease. Rather, it should explore whether the classical framework of *Srotas*, *Srotodusti* and *Kha-vaigunya* can provide a meaningful functional interpretation of structural and pathological alterations observed in UC.

AIM AND OBJECTIVES

Aim

To study the anatomical and conceptual aspects of *Purishvaha Srotas* and to explore their correlation with the anatomical and pathological features of ulcerative colitis.

Objectives

1. To review the classical description of *Srotas* and *Purishvaha Srotas*.
2. To examine the classical concepts of *Mula*, *Marga*, *Mukha* and functional activity of *Purishvaha Srotas*.
3. To correlate the concept of *Purishvaha Srotas* with contemporary gross anatomy of the large intestine and anorectal region.
4. To examine the embryological basis of the colorectal region.
5. To review normal histological architecture and physiological functions relevant to *Purishvaha Srotas*.
6. To study the gross, endoscopic and histopathological alterations occurring in ulcerative colitis.
7. To interpret these alterations through the Ayurvedic concepts of *Srotodusti*, *Kha-vaigunya* and *Dosa-dusya sammurchana*.
8. To establish an appropriate and scientifically cautious Ayurvedic-contemporary correlation.

MATERIALS AND METHODS

The present work is a conceptual and analytical review based on classical Ayurvedic literature and contemporary biomedical literature. Classical sources included the *Caraka Samhita*, particularly *Vimana Sthana* chapter 5, and the *Susruta Samhita*, *Sarira Sthana* chapter 9. The classical references and interpretations were also considered in relation to the conceptual material supplied for the present article. Contemporary literature was reviewed for gross anatomy, embryology, histology, vascular and neural anatomy, endoscopic appearance, disease distribution and histopathology of ulcerative colitis. Current gastroenterological recommendations emphasize colonoscopy with intubation of the ileum and biopsies from affected and unaffected areas to confirm and characterize UC.^[3,6] The analysis was performed under the following domains: classical conceptual analysis of *Srotas*; classical description of *Purishvaha Srotas*; anatomical correlation; embryological correlation; histological and physiological correlation; contemporary understanding of UC; and interpretation of UC-related structural and functional alterations through *Srotodusti*. The correlation presented in this article is conceptual rather than an assertion that Ayurvedic structures are anatomically identical to modern anatomical structures.

CONCEPTUAL REVIEW OF SROTAS

The classical concept of *Srotas* encompasses pathways through which substances move within the body. Caraka describes thirteen major internal *Srotas*, while simultaneously recognizing that the body contains innumerable channels at microscopic and functional levels.^[1] *Srotas* can be considered from structural and functional perspectives. Structurally, some pathways are gross and anatomically recognizable, whereas others may represent subtle or functional pathways. Functionally, they facilitate transport, secretion, absorption, transformation, nourishment and elimination. The conceptual article on which this work is based identifies functions such as *Grahana*, *Sravana*, *Vahana*, *Sosana*, *Nissarana*, *Pacana* and *Vivecana*.

The physiological integrity of *Srotas* is essential for maintaining normal tissue function. The *Srotas* provide pathways through which nutritive and waste components are continuously transported. Consequently, disturbance in a particular *Srotas* may produce functional and structural consequences in the corresponding region. Caraka describes four broad patterns of *Srotodusti*: *Atipravrtti*, *Sanga*, *Siragranthi* and *Vimarga-gamana*.^[1] These terms represent excessive flow, obstruction or stagnation, structural nodularity or abnormal vascular change,

and movement through an inappropriate pathway, respectively. Thus, *Srotas* may be understood as a functional anatomical network in which normal structure and normal physiological activity are interdependent.

CLASSICAL DESCRIPTION OF PURISHVAHA SROTAS

Purishvaha Srotas is one of the thirteen major internal *Srotas* described by Acarya Caraka. It is associated with *Purish* and belongs conceptually to the excretory pathways of the body.^[1] The classical discussion of *Srotas* emphasizes the importance of understanding their *Mula* or roots. In the context of *Purishvaha Srotas*, the classical description provides a framework for identifying the principal anatomical regions associated with fecal formation and elimination. The classical descriptions should be interpreted within their own textual framework rather than being automatically equated with individual modern organs. Acarya Susruta discusses eleven pairs of principal *Srotas*, with differences in enumeration and categorization compared with Caraka.^[2] This variation demonstrates that classical *Srotas* classification is not a rigid anatomical classification equivalent to modern organ-based anatomy.

For anatomical correlation, therefore, *Purishvaha Srotas* is best regarded as a functional anatomical continuum involving the intestinal region responsible for processing, transport and evacuation of fecal material. This interpretation is consistent with the broader classical description of *Srotas* as pathways of movement and transformation.

Conceptual components

Component	Interpretative significance
Mula	The classical root or principal site from which the functional pathway is considered to arise.
Marga/Ayana	The pathway through which the relevant material is transported.
Mukha	The opening or terminal outlet through which the relevant material is communicated or eliminated.
Vahana	Transport or movement of the relevant contents.
Nissarana	Elimination of waste material from the body.

ANATOMICAL CORRELATION OF PURISHVAHA SROTAS

Gross anatomy

The large intestine extends from the ileocaecal junction to the anal canal and consists of the caecum, appendix, colon and rectum. The colon is divided into ascending, transverse, descending and sigmoid portions.^[7] The caecum receives the terminal ileum through the ileocaecal junction and provides the beginning of the large intestinal pathway. The ascending

colon passes superiorly on the right side of the abdomen and continues as the transverse colon. The transverse colon crosses the abdominal cavity before becoming the descending colon at the splenic flexure. The descending colon continues into the sigmoid colon, which joins the rectum. The rectum functions principally as a storage compartment before defecation, while the anal canal provides the terminal pathway for elimination. This continuous anatomical pathway provides a reasonable modern anatomical framework for understanding the functional domain of *Purishvaha Srotas*. Nevertheless, the Ayurvedic concept encompasses function and transport and should therefore not be reduced merely to the anatomical wall of the colon.

The colon performs absorption of water and electrolytes and contributes to the concentration and storage of fecal material. The distal colon and rectum participate in propulsion, storage and coordinated evacuation.^[7] These functions demonstrate why the anatomical and functional aspects of *Purishvaha Srotas* should be considered together.

Histological correlation

The wall of the colon is composed of mucosa, submucosa, muscularis externa and an external serosal or adventitial covering depending upon the anatomical segment. The colonic mucosa is lined predominantly by simple columnar epithelium with numerous goblet cells. The crypts of Lieberkühn extend through the mucosa and contain epithelial cell populations involved in secretion, absorption, renewal and innate defence.

Unlike the small intestine, the colon lacks villi. Its numerous crypts and abundant goblet cells facilitate mucus production and maintenance of the luminal barrier. The epithelial barrier is continuously renewed through proliferative activity within the crypts. The lamina propria contains immune cells, blood vessels and lymphatic structures. This arrangement is particularly relevant to UC because the disease primarily affects the mucosa and produces inflammatory and epithelial changes within this compartment. Histopathological evaluation is therefore an important component of UC assessment.^[5,6]

Blood supply

The vascular arrangement of the colon reflects its embryological division. The superior mesenteric artery supplies the caecum, appendix, ascending colon and proximal two-thirds of the transverse colon, whereas the inferior mesenteric artery supplies the distal transverse colon, descending colon and sigmoid colon. The superior rectal artery contributes to the

vascular supply of the upper rectum, with additional middle and inferior rectal contributions to the distal anorectal region.^[7,8] The arterial branches form anastomotic networks along the colon, contributing to collateral circulation. Venous drainage generally accompanies the arterial supply and ultimately enters the portal circulation for much of the large intestine. From a *Srotas* perspective, the vascular network does not represent the entirety of *Purishvaha Srotas*; however, it demonstrates the complex anatomical infrastructure required for maintaining the vitality and functional integrity of the intestinal wall.

Lymphatic drainage

Lymphatic vessels accompany the vascular pathways and drain through epicolic, paracolic, intermediate and principal regional lymph nodes.^[7,8] The lymphatic system is particularly important in the immunological environment of the intestine. The close relationship between intestinal mucosa, lymphoid tissue and immune surveillance is relevant to the pathogenesis of inflammatory bowel disease. Thus, contemporary anatomy highlights that intestinal function depends on the integrated activity of epithelial, vascular, lymphatic, neural and muscular components.

Nerve supply

The colon contains an intrinsic enteric nervous system composed principally of the myenteric and submucosal plexuses. These neural networks regulate motility, secretion and local reflex activity. Extrinsic autonomic influences are provided by sympathetic and parasympathetic pathways. The distal colon and rectum have important parasympathetic contributions from pelvic splanchnic nerves.^[7,9] The coordination of motility, rectal sensation and sphincteric control allows fecal storage and subsequent defecation. This integrated physiological process may be considered a modern functional correlate of the broader concepts of *Vahana* and *Nissarana* associated with *Purishvaha Srotas*.

EMBRYOLOGICAL PERSPECTIVE

Embryologically, the large intestine develops from both the midgut and hindgut. The caecum, appendix, ascending colon and proximal two-thirds of the transverse colon arise from the midgut. The distal one-third of the transverse colon, descending colon, sigmoid colon and rectum arise from the hindgut.^[10,11] During development, the midgut undergoes physiological herniation and approximately 270-degree counterclockwise rotation around the superior mesenteric artery. Subsequent return of the intestinal loop to the abdominal cavity and descent of the caecum establish the characteristic adult arrangement of the large intestine.^[10]

The hindgut terminates in the cloaca. Development of the urorectal septum separates the anorectal region from the urogenital component. The upper anal canal has an endodermal origin through the hindgut, whereas the lower portion is derived from the ectodermal proctodeum. The junction is reflected anatomically by the pectinate or dentate line.^[12] The embryological distinction between midgut and hindgut also corresponds to differences in arterial supply, autonomic innervation and lymphatic drainage. Therefore, embryology provides an additional layer of anatomical understanding for *Purishvaha Srotas*.

From an Ayurvedic perspective, the classical description does not provide a modern embryological account. Consequently, any attempt to correlate embryology with *Purīṣavaha Srotas* should be presented as a contemporary anatomical interpretation rather than as a claim that embryological concepts were explicitly described in the classical texts.

FUNCTIONAL CONSIDERATION OF PURISHVAHA SROTAS

The large intestine is not simply a passive conduit for fecal material. It participates in absorption, microbial metabolism, mucus secretion, electrolyte handling, storage and controlled evacuation. Water absorption progressively changes the consistency of luminal contents as material moves through the colon. The enteric nervous system coordinates segmental and propulsive movements. The rectum acts as a reservoir and participates in the sensation of distension and initiation of the defecatory reflex. The anal sphincter complex provides voluntary and involuntary control of evacuation.

The classical concept of *Purishvaha Srotas* may therefore be interpreted as a broader functional system that includes the movement, processing and elimination of *Purish*. The concept should not be limited to the colon alone because physiological functions occur through interaction between multiple gastrointestinal structures. This integrated interpretation is consistent with the broader Ayurvedic principle that *Srotas* function as pathways for transportation, transformation and elimination rather than as isolated tubes.

ULCERATIVE COLITIS: CONTEMPORARY PERSPECTIVE

Ulcerative colitis is a chronic inflammatory bowel disease characterized by inflammation of the colonic mucosa. Its precise etiology is multifactorial and involves interactions among genetic susceptibility, immune responses, intestinal microbial factors and environmental influences.^[3,4] The disease commonly presents with bloody diarrhoea, increased stool frequency, urgency, abdominal pain or discomfort and constitutional manifestations in more

extensive or severe disease. Contemporary guidance recommends exclusion of infectious causes and appropriate endoscopic and histological evaluation when UC is suspected.^[3,6]

Anatomical distribution

A characteristic feature of UC is continuous inflammation beginning in the rectum and extending proximally. Based on extent, disease may be categorized as proctitis, left-sided colitis or extensive colitis/pancolitis.^[3,4] Endoscopically, common findings include erythema, mucosal oedema, loss of the normal vascular pattern, friability, spontaneous bleeding, erosions and ulceration.^[4] The distribution of disease is an important diagnostic feature and also provides a direct anatomical basis for assessing disease severity and progression.

Gross pathological changes

Grossly, affected mucosa may appear erythematous, granular, oedematous and friable. Superficial ulceration may occur, and severe or longstanding disease may demonstrate extensive ulceration and inflammatory pseudopolyps. The inflammation is classically continuous rather than showing the skip lesions typically associated with Crohn disease.^[4,13] Histopathological interpretation must, however, recognize atypical presentations, including treatment-associated patchiness, rectal sparing and limited caecal inflammation.^[5]

Histopathology

The histological diagnosis of UC depends on recognizing chronic inflammatory injury together with active inflammation and characteristic distribution. Features may include crypt architectural distortion, cryptitis, crypt abscess formation, basal plasmacytosis and chronic inflammatory infiltration of the lamina propria.^[5,6] Crypt architectural abnormalities reflect chronicity, whereas neutrophilic infiltration and cryptitis indicate active mucosal inflammation. The distinction between chronicity and activity is clinically important because histological assessment contributes to evaluation of disease status.^[6] The contemporary literature emphasizes that histopathology should be interpreted alongside clinical, endoscopic and radiological information rather than being considered in isolation.^[5,6]

SROTODUSTI AND PURISHVAHA SROTAS IN ULCERATIVE COLITIS

The concept of *Srotodusti* provides a framework for interpreting disturbance of the normal functional state of a *Srotas*. *Caraka* describes four general forms: *Atipravritti*, *Sanga*, *Siragranthi* and *Vimarga-gamana*.^[1] In UC, the most apparent conceptual correspondence is with altered intestinal flow and abnormal elimination. Increased stool frequency, loose stools

and rectal bleeding represent disturbed bowel function; however, these clinical manifestations should not be directly labelled as a classical *Srotodusti* subtype without adequate textual justification. The term *Atipravritti* may be used cautiously as a conceptual analogy for excessive or increased output, particularly when stool frequency is increased. Nevertheless, UC is a complex inflammatory disorder and cannot be adequately explained by increased bowel output alone.

Similarly, *Sanga* should not be equated directly with UC because obstruction is not a defining feature of the disease. Likewise, *Siragranthi* and *Vimarga-gamana* do not have straightforward one-to-one pathological equivalents in UC. The more useful interpretation is therefore that *Srotodusti* denotes disturbance in the normal structural-functional integrity of the *Purishvaha* system, while its specific manifestations should be interpreted according to the clinical context.

KHA-VAIGUNYA AND DOSA-DUSYA INTERACTION

An important conceptual component of Ayurvedic pathogenesis is the development of *Kha-vaigunya*, representing a susceptible or functionally compromised site at which pathological processes become established. The conceptual material supplied for this article describes a sequence involving *Agni dusti*, *Kha-vaigunya*, *Srotodusti* and subsequent *Dosa-dusya sammurchana*. In UC, the colorectal mucosa becomes the principal site of pathological alteration. From a conceptual standpoint, this may be discussed as a site of susceptibility where pathological factors interact with tissue and produce structural and functional disturbance. The concept of *Dosa-dusya sammurchana* may similarly be used as a theoretical framework for understanding interaction between pathogenic factors and susceptible tissues. However, it should not be equated with a particular immune pathway, cytokine or molecular mechanism unless experimentally demonstrated.

A conceptual sequence of *Dosa-dusya sammurchana*:

Hetu/Nidana → *Dosa* and functional disturbance → *Agni vaigunya* → *Dusya* susceptibility and *Kha-vaigunya* → *Purishvaha Srotodusti* → *Dosa-dusya sammurchana* → colonic mucosal alteration → inflammation and ulceration → clinical manifestations of UC.

AYURVEDIC–MODERN ANATOMICAL CORRELATION

Ayurvedic concept	Contemporary anatomical/functional interpretation
Purishvaha Srotas	Functional colorectal pathway concerned with fecal processing, transport and elimination.
Mula	Classical root or principal anatomical-functional sites described in the texts.
Marga/Ayana	Continuity of the intestinal and anorectal pathway.
Mukha	Opening or terminal outlet involved in elimination.
Vahana	Propulsion and movement of intestinal contents.
Nissarana	Elimination through defecation.
Srotodusti	Conceptual description of disturbed structural-functional integrity.
Kha-vaigunya	Site of susceptibility to pathological involvement.
Dosa-dusya sammurchana	Conceptual interaction between pathogenic factors and susceptible tissues.
Atipravrtti	Possible phenomenological analogy with excessive stool output or frequency.

The contemporary large intestine provides an anatomical substrate for many functions attributed to *Purishvaha Srotas*. However, the relationship is best understood as functional and conceptual correspondence, not anatomical identity. The distinction is important because a modern organ is defined primarily by morphology, developmental origin, vascularity, histology and physiological activity, whereas an Ayurvedic *Srotas* can integrate multiple anatomical structures according to their shared function. The classical literature also recognizes that *Srotas* are not restricted to grossly visible structures. This broader framework supports an interpretation in which *Puravaha Srotas* represents an integrated functional domain rather than a single anatomical tube.

ENDOSCOPIC AND HISTOPATHOLOGICAL CORRELATION

Endoscopy provides direct visualization of the mucosal surface and is therefore particularly valuable when studying the relationship between *Purishvaha Srotas* and UC. Characteristic endoscopic changes include mucosal erythema, oedema, friability, loss of vascular pattern, erosions, spontaneous bleeding and ulceration.^[3,4]

Modern assessment may use standardized indices such as the Mayo Endoscopic Score and the Ulcerative Colitis Endoscopic Index of Severity. These systems enable semi-quantitative assessment of mucosal inflammatory activity. Histology complements endoscopy by identifying microscopic alterations. Segmental mucosal biopsies from involved and uninvolved areas are recommended during evaluation because distribution, chronicity and activity are important components of inflammatory bowel disease assessment.^[3,5]

Thus, the contemporary sequence may be conceptualized as: gross anatomy → mucosal structure → endoscopic appearance → microscopic architecture → pathological alteration → clinical manifestation.

The Ayurvedic framework may then be considered conceptually as: normal *Srotas* → functional disturbance → *Srotodusti* → site susceptibility (*Kha-vaigunya*) → pathological manifestation.

This provides a possible interdisciplinary framework for future anatomical research.

DISCUSSION

The concept of *Purishvaha Srotas* occupies a distinctive position because it combines anatomical location with physiological function. The classical descriptions cannot be reduced to a simple statement that *Purishvaha Srotas* is equivalent to the large intestine. Rather, the concept appears to encompass the functional pathway concerned with fecal processing, movement and elimination. The modern large intestine provides a suitable anatomical region for exploring this concept because it performs absorption, concentration, storage and propulsion of fecal material. Its epithelial, muscular, vascular, lymphatic and neural components operate as an integrated system.^[7] The anatomical distribution of UC further strengthens the relevance of this comparison. UC predominantly affects the colonic mucosa, usually beginning in the rectum and extending proximally in a continuous manner.^[3,4] Therefore, the disease involves the same broad anatomical-functional territory that can be considered within the domain of *Purishvaha Srotas*.

At the histological level, the mucosa of the colon contains crypts and abundant goblet cells, providing a specialized barrier between the intestinal lumen and underlying tissue. In UC, this mucosal architecture becomes altered through chronic inflammation and active epithelial injury. Crypt architectural distortion reflects chronic disease, whereas cryptitis and crypt abscesses indicate active inflammation.^[5,6] From the Ayurvedic perspective, the importance of maintaining the integrity of *Srotas* is emphasized in the classical literature. Disease may arise when pathological factors interact with a susceptible site. The concept of *Kha-vaigunya* therefore offers a theoretical model through which regional susceptibility may be discussed.

The concept of *Dosa-dusya sammurchana* may similarly be used as a theoretical framework for understanding interaction between pathogenic factors and susceptible tissues. The present conceptual approach emphasizes this sequence and considers *Srotodusti* an important component in the transition from functional disturbance to disease manifestation. However,

caution is necessary. Modern UC is understood through mechanisms involving epithelial barrier dysfunction, altered innate and adaptive immune responses, intestinal microbial interactions and genetic and environmental factors.^[3,4] These mechanisms cannot simply be renamed using Ayurvedic terminology. The appropriate scholarly approach is therefore to identify conceptual parallels without claiming mechanistic equivalence.

The four classical forms of *Srotodusti* also require careful interpretation. Increased stool frequency in UC may resemble *Atipravrtti* at a phenomenological level, but the disease cannot be defined solely by this feature. Similarly, mucosal ulceration should not automatically be classified as *Siragranthi* or another classical category. Classical terminology should be used according to its original meaning and only then explored for contemporary relevance. This distinction is particularly important for postgraduate Ayurvedic research. A good anatomical correlation should neither reject the classical concept because it does not exactly match modern terminology nor artificially force every modern pathological finding into an Ayurvedic category. Instead, it should establish areas of correspondence, identify differences and propose hypotheses that can be tested by future research.

The concept of *Srotas* is particularly suitable for interdisciplinary investigation because it integrates structure and function. Modern anatomy generally separates gross morphology, histology, embryology, physiology and pathology into specialized domains, whereas the Ayurvedic *Srotas* concept naturally brings transport, function, structural integrity and disease susceptibility into a unified framework. Therefore, an anatomical study of *Purishvaha Srotas* in relation to UC can be viewed as a bridge between two explanatory systems. The modern anatomical approach identifies structures, tissues, vascular pathways, neural pathways and pathological alterations. The Ayurvedic approach provides a conceptual framework concerning pathways, functional integrity, susceptibility and disease manifestation. Such a correlation may have implications for future research. Cadaveric anatomical studies could examine the structures traditionally considered related to *Purishvaha Srotas*. Histological studies could compare normal and diseased colorectal tissues. Endoscopic studies could document disease distribution and mucosal changes. Clinical studies could investigate whether Ayurvedic assessment of *Srotodusti* demonstrates reproducible associations with disease severity or anatomical extent.

The integration of gross anatomy, histology, endoscopy and histopathology is particularly valuable because contemporary UC diagnosis itself depends on correlation between clinical,

endoscopic and microscopic observations.^[3,5,6] This multimodal approach therefore provides a scientifically appropriate framework for investigating an Ayurvedic anatomical concept.

CONCLUSION

Purishvaha Srotas represents an important Ayurvedic anatomical-functional concept associated with the processing, transportation and elimination of *Purish*. Its interpretation becomes more comprehensive when the entire colorectal pathway rather than a single anatomical organ is considered. Contemporary anatomy demonstrates that the caecum, colon, rectum and anal canal form an integrated structural and functional continuum supported by specialized mucosa, vascular supply, lymphatic drainage and enteric and autonomic innervation. Embryology further explains the developmental and vascular distinction between midgut- and hindgut-derived regions. Ulcerative colitis primarily affects the colonic mucosa and produces characteristic endoscopic and histopathological abnormalities. These pathological changes can be conceptually discussed through *Srotodusti*, *Kha-vaigunya* and *Dosa-dusya sammurchana*, provided that the correlation is presented as an interpretative framework rather than an exact equivalence.

Thus, the study of *Purishvaha Srotas* provides an opportunity for meaningful dialogue between Ayurvedic anatomy and contemporary colorectal science. A multimodal approach combining classical textual analysis, gross anatomy, embryology, histology, endoscopy and histopathology may provide a stronger scientific basis for understanding this ancient anatomical concept and its possible relevance to ulcerative colitis.

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