http://dx.doi.org/10.18623/rvd.v23.5982

DIAGNOSTIC ACCURACY OF CT ENTEROGRAPHY IN THE DIAGNOSIS OF SMALL BOWEL DISEASES KEEPING HISTOPATHOLOGY AS GOLD STANDARD

PRECISÃO DIAGNÓSTICA DA ENTEROGRAFIA POR TOMOGRAFIA COMPUTADORIZADA NO DIAGNÓSTICO DE DOENÇAS DO INTESTINO DELGADO, TENDO A HISTOPATOLOGIA COMO PADRÃO-OURO

Article received on: 3/18/2026
Article accepted on: 4/7/2026

Mehmil Razzaq*
***University of Child Health Sciences, The Children's Hospital (UCHS), Lahore, Pakistan
mehmilrazzaq1704@gmail.com

Amber Goraya*
***University of Child Health Sciences, The Children's Hospital (UCHS), Lahore, Pakistan
amber.goraya@yahoo.com

Ayesha Akram*
***University of Child Health Sciences, The Children's Hospital (UCHS), Lahore, Pakistan
amjumf@gmail.com

Maham Ashraf**
****The Children's Hospital (TCH), Lahore, Pakistan
drmaham17@gmail.com

Rukhsar Javaid**
****The Children's Hospital (TCH), Lahore, Pakistan
rukhsar.javaid123@gmail.com

The authors declare that there is no conflict of interest

Abstract

Background: Small bowel tuberculosis (SBTB) remains a significant diagnostic challenge in tuberculosis-endemic regions due to overlapping clinical and radiological features with other small bowel diseases. Computed tomography enterography (CTE) offers a noninvasive modality for comprehensive bowel assessment, but its diagnostic accuracy requires validation against histopathology in pediatric populations. Objective: To determine the diagnostic accuracy of CT enterography in detecting small bowel tuberculosis, using histopathology as the gold standard in a pediatric population. Methods: This descriptive case series was conducted at the Department of Diagnostic Radiology, The Children's Hospital and Institute of Child Health, Lahore, from December 2025 to March 2026. A total of 116 children aged 5–16 years with clinical suspicion of small bowel tuberculosis were included. All participants underwent standardized CTE followed by histopathological

Resumo

Antecedentes: A tuberculose do intestino delgado (TID) continua sendo um desafio diagnóstico significativo em regiões onde a tuberculose é endêmica, devido à sobreposição de características clínicas e radiológicas com outras doenças do intestino delgado. A enterografia por tomografia computadorizada (ETC) oferece uma modalidade não invasiva para a avaliação integral do intestino, mas sua precisão diagnóstica requer validação em relação à histopatologia em populações pediátricas. Objetivo: Determinar a precisão diagnóstica da enterografia por TC na detecção da tuberculose do intestino delgado, utilizando a histopatologia como padrão-ouro em uma população pediátrica. Métodos: Esta série de casos descritiva foi realizada no Departamento de Radiologia Diagnóstica do Hospital Infantil e Instituto de Saúde Infantil, em Lahore, de dezembro de 2025 a março de 2026. Foram incluídas 116 crianças com idades entre 5 e 16

confirmation via ileocolonoscopy-guided biopsy. Diagnostic parameters including sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and overall accuracy were calculated using SPSS version 25. Stratification analysis was performed to assess the effect of demographic and clinical variables. Results: The mean age of participants was 10.8 ± 3.1 years, with a male predominance (58.6%). Histopathology confirmed small bowel tuberculosis in 26.7% of cases. CT enterography demonstrated a sensitivity of 87.1%, specificity of 92.9%, PPV of 81.8%, NPV of 95.2%, and overall diagnostic accuracy of 91.4%. Necrotic lymph nodes and bowel wall thickening were the most frequent imaging findings. Diagnostic performance remained consistent across age groups, gender, BMI categories, and duration of symptoms, with no statistically significant differences observed on stratification. Conclusion: CT enterography demonstrates high diagnostic accuracy for detecting small bowel tuberculosis in children and may serve as a reliable, noninvasive first-line imaging modality in resource-limited and tuberculosis-endemic settings.

Keywords: Computed Tomography Enterography. Intestinal Tuberculosis. Small Intestine Diseases. Diagnostic Accuracy. Histopathology. Pediatric Population.

anos com suspeita clínica de tuberculose do intestino delgado. Todos os participantes foram submetidos a CTE padronizada, seguida de confirmação histopatológica por meio de biópsia guiada por ileocolonoscopia. Parâmetros diagnósticos, incluindo sensibilidade, especificidade, valor preditivo positivo (VPP), valor preditivo negativo (VPN) e precisão geral, foram calculados utilizando o SPSS versão 25. Foi realizada uma análise de estratificação para avaliar o efeito das variáveis demográficas e clínicas. Resultados: A idade média dos participantes foi de 10,8 ± 3,1 anos, com predominância do sexo masculino (58,6%). A histopatologia confirmou tuberculose do intestino delgado em 26,7% dos casos. A enterografia por TC demonstrou sensibilidade de 87,1%, especificidade de 92,9%, VPP de 81,8%, VPN de 95,2% e precisão diagnóstica geral de 91,4%. Linfonodos necróticos e espessamento da parede intestinal foram os achados de imagem mais frequentes. O desempenho diagnóstico permaneceu consistente entre as faixas etárias, sexo, categorias de IMC e duração dos sintomas, sem diferenças estatisticamente significativas observadas na estratificação. Conclusão: A enterografia por TC demonstra alta precisão diagnóstica para a detecção de tuberculose do intestino delgado em crianças e pode servir como uma modalidade de imagem de primeira linha confiável e não invasiva em ambientes com recursos limitados e onde a tuberculose é endêmica.

Palavras-chave: *Enterografia por Tomografia Computadorizada. Tuberculose Intestinal. Doenças do Intestino Delgado. Precisão Diagnóstica. Histopatologia. População Pediátrica.*

1 INTRODUCTION

Small bowel diseases (SBDs), encompassing Crohn's disease (CD), intestinal tuberculosis (ITB), neoplasms, and other inflammatory or neoplastic conditions, present significant diagnostic challenges owing to nonspecific clinical symptoms, limited accessibility of the small intestine to conventional endoscopy, and overlapping features on imaging and histopathology (1). Globally, the incidence of inflammatory bowel

disease (IBD), particularly CD with small bowel involvement in up to 70% of cases, continues to rise. Accurate and timely diagnosis is essential, as delays can result in complications such as strictures, fistulae, abscesses, or malignancy, adversely impacting patient outcomes and quality of life. Although histopathology remains the gold standard for definitive diagnosis, it frequently requires invasive procedures like enteroscopy or surgery, restricting its use for initial evaluation or monitoring (2).

Cross-sectional imaging has transformed the assessment of SBDs. Computed tomography enterography (CTE) utilizes neutral oral contrast for bowel distension combined with intravenous contrast-enhanced multidetector CT, allowing comprehensive evaluation of bowel wall thickness, enhancement patterns, mural stratification, mesenteric abnormalities (e.g., comb sign, fat stranding), and extraintestinal complications in a single, rapid, non-invasive study (3). Unlike barium studies or capsule endoscopy, CTE provides transmural and extraluminal information with high spatial resolution and broad availability. Studies have reported high diagnostic performance, with sensitivity and specificity often exceeding 85–95% for active CD and its complications when correlated with histopathology (2,4).

Diagnostic accuracy, however, varies according to disease subtype, geographic setting, and reference standard. Systematic reporting and reviews support CTE's value in differentiating CD from mimics such as ITB and small bowel tumors, although heterogeneity in protocols highlights the need for context-specific validation (5).

In Pakistan, a tuberculosis-endemic country, distinguishing ITB from CD remains particularly difficult due to overlapping clinical, endoscopic, radiological, and histopathological features, often resulting in initial misdiagnosis and inappropriate therapy (5). Recent local evidence suggests that IBD prevalence is likely underestimated because of underdiagnosis, with many CD cases misattributed to TB, leading to diagnostic delays and suboptimal management (6). Limited access to advanced tools such as magnetic resonance enterography (MRE) or capsule endoscopy, along with resource constraints in public healthcare, positions CTE as a practical first-line modality—offering speed, affordability, and detailed transmural assessment. Local experiences and similar regional studies emphasize CTE's utility in identifying differentiating features such as bowel wall patterns, necrotic lymph nodes, and skip lesions (5,7).

This study therefore aims to evaluate the diagnostic accuracy of CTE for SBDs using histopathology as the gold standard, generating evidence-based recommendations suited to resource-limited, TB-endemic settings like Pakistan. Such data will support optimized clinical algorithms, efficient resource use, and improved patient outcomes through precise and timely diagnosis.

2 METHODOLOGY

This descriptive case series was conducted in the Department of Diagnostic Radiology, The Children's Hospital and Institute of Child Health, Lahore, over a minimum study period of three from December 2025 to March 2026, after approval of the synopsis. The study was designed to determine the diagnostic accuracy of computed tomography enterography (CTE) for the diagnosis of small bowel tuberculosis, using histopathology as the reference standard. A total sample of 116 patients was calculated using an expected frequency of 26.1%, a margin of error of 8%, and a 95% confidence level. Children of either sex aged 5 to 16 years who fulfilled the operational criteria for suspected small bowel tuberculosis were eligible for inclusion. Clinical suspicion was based on the presence of symptoms for more than four weeks, including vague abdominal pain, abdominal cramps, abdominal distension, recurrent subacute intestinal obstruction, and unexplained weight loss. Patients with chronic liver or kidney disease, acute intestinal conditions such as obstruction, perforation, or enteritis, known allergy to iodinated contrast media, pregnancy or lactation, or refusal to provide consent were excluded from the study.

After approval from the institutional ethical committee, eligible patients were recruited from the outpatient department of The Children's Hospital, Lahore. Written informed consent was obtained from the parents or guardians of all participants before enrollment. For bowel preparation, patients were advised a low-residue diet, adequate oral fluid intake, a laxative on the day preceding the examination, and fasting on the day of imaging. Room-temperature iso-osmotic mannitol was used as the neutral enteral contrast agent and was diluted to a 20% solution with sufficient water to prepare a total volume of 1500 mL. The solution was administered orally over 50 minutes, with patients instructed to drink at 5-minute intervals. Immediately before scanning, 20 mg intravenous

buscopan was administered to reduce bowel spasm. CTE was then performed on a multidetector CT scanner after intravenous injection of 100–120 mL of non-ionic iodinated contrast medium through a 20-gauge cannula at a rate of 4.5 mL per second. Scanning was started after a 50-second delay to obtain enteric-phase images, extending from the upper diaphragmatic domes to the lower margin of the symphysis pubis during a single breath-hold, followed by coronal image reconstruction for interpretation. CTE was considered positive for small bowel tuberculosis when one or more predefined radiologic features were present, including irregular omental soft-tissue densities, low-attenuation masses with thick enhancing rims, low-attenuating necrotic nodes, disorganized soft-tissue densities, high-attenuation ascites, or poorly defined matted bowel loops.

Following imaging, biopsy specimens from the small bowel were obtained by a gastroenterologist through ileocolonoscopy with retrograde terminal ileal intubation and sent to the hospital laboratory for histopathological examination. Histopathology was taken as the gold standard, and small bowel tuberculosis was considered confirmed when tissue sections demonstrated well-formed epithelioid cell granulomas with caseous necrosis and Langhans giant cells, with or without acid-fast bacilli on Ziehl–Neelsen staining. To minimize observer bias, all CTE examinations were interpreted by the same consultant radiologist and all histopathology specimens were reported by the same histopathologist. Data were recorded on a predesigned proforma and entered into SPSS version 25 for analysis. Quantitative variables, including age, body mass index, and duration of symptoms, were summarized as mean ± standard deviation, while categorical variables such as gender and CTE and histopathology findings were presented as frequencies and percentages. Diagnostic performance measures, including sensitivity, specificity, positive predictive value, negative predictive value, and overall diagnostic accuracy, were calculated using standard formulas based on true-positive, false-positive, true-negative, and false-negative results. Potential effect modifiers such as age, BMI, and duration of symptoms were controlled through stratification, and post-stratification chi-square testing was applied, with a p-value of ≤ 0.05 considered statistically significant.

3 RESULTS

A total of 116 children with clinical suspicion of small bowel tuberculosis were included in the study. The mean age of the participants was 10.8 ± 3.1 years, with ages ranging from 5 to 16 years. There were 68 males (58.6%) and 48 females (41.4%). The mean body mass index was 17.4 ± 2.5 kg/m², while the mean duration of symptoms was 3.8 ± 1.6 months. Most patients were in the 11–16 years age group, and more than half had symptom duration exceeding 3 months (Table 1).

Table 1

Demographic and baseline characteristics of the study population (n = 116)

Variable	Category	n (%) / Mean ± SD
Age (years)	Mean ± SD	10.8 ± 3.1
	5–10 years	49 (42.2)
	11–16 years	67 (57.8)
Gender	Male	68 (58.6)
	Female	48 (41.4)
BMI (kg/m²)	Mean ± SD	17.4 ± 2.5
	≤17.5 kg/m²	61 (52.6)
	>17.5 kg/m²	55 (47.4)
Duration of symptoms (months)	Mean ± SD	3.8 ± 1.6
	≤3 months	47 (40.5)
	>3 months	69 (59.5)

Vague abdominal pain was the most frequent presenting complaint, followed by abdominal cramps and abdominal distension. Unexplained weight loss was observed in half of the participants, while recurrent subacute intestinal obstruction was present in nearly one-third of cases, reflecting the typical clinical spectrum of suspected small bowel tuberculosis in the local pediatric population (Table 2).

Table 2

Clinical presentation of study participants (n = 116)

Clinical feature	n	%
Vague abdominal pain	104	89.7
Abdominal cramps	78	67.2
Abdominal distension	72	62.1
Recurrent subacute intestinal obstruction	36	31.0
Unexplained weight loss	58	50.0

On CT enterography, 33 patients (28.4%) were labeled positive for small bowel tuberculosis. Among CTE-positive cases, necrotic mesenteric or ileocecal lymph nodes were the most common imaging finding, followed by disorganized soft-tissue densities with mural thickening. Irregular omental soft-tissue densities and rim-enhancing low-attenuation masses were also frequently noted, whereas poorly defined bowel loop masses were less common (Table 3).

Table 3

CT enterography findings among CTE-positive patients (n = 33)

Radiological finding	n	%
Low-attenuating necrotic nodes	27	81.8
Disorganized soft-tissue densities / bowel wall thickening	25	75.8
Irregular omental soft-tissue densities	19	57.6
Low-attenuating masses with thick solid rims	14	42.4
High-attenuating ascitic fluid	13	39.4
Poorly defined bowel loop masses	11	33.3

Histopathology confirmed small bowel tuberculosis in 31 patients (26.7%). Cross-tabulation of CTE findings against histopathology showed that 27 patients were true positive, 79 were true negative, 6 were false positive, and 4 were false negative. Overall, there was a high level of agreement between CT enterography and histopathology (Table 4).

Table 4

Comparison of CT enterography with histopathology for diagnosis of small bowel tuberculosis (n = 116)

CT enterography	Histopathology positive	Histopathology negative	Total
Positive	27	6	33
Negative	4	79	83
Total	31	85	116

CT enterography demonstrated a sensitivity of 87.1%, specificity of 92.9%, positive predictive value of 81.8%, negative predictive value of 95.2%, and overall diagnostic accuracy of 91.4% in detecting small bowel tuberculosis when histopathology was taken as the gold standard. These findings suggest that CT enterography is a highly reliable noninvasive imaging modality in this clinical setting (Table 5).

Table 5

Diagnostic performance of CT enterography using histopathology as gold standard

Diagnostic parameter	Value
Sensitivity	87.1%
Specificity	92.9%
Positive predictive value	81.8%
Negative predictive value	95.2%
Diagnostic accuracy	91.4%

Post-stratification analysis showed consistently high concordance between CT enterography and histopathology across age groups, gender, BMI categories, and duration of symptoms. No statistically significant difference in diagnostic agreement was observed across these strata, indicating that the performance of CT enterography remained stable across the main clinical subgroups included in the study (Table 6).

Table 6

Stratification of diagnostic concordance by demographic and clinical variables

Variable	Category	Concordant n (%)	Discordant n (%)	p-value
Age group	5–10 years	44 (89.8)	5 (10.2)	0.64
	11–16 years	62 (92.5)	5 (7.5)	
Gender	Male	62 (91.2)	6 (8.8)	0.88
	Female	44 (91.7)	4 (8.3)	
BMI	≤17.5 kg/m²	55 (90.2)	6 (9.8)	0.79
	>17.5 kg/m²	51 (92.7)	4 (7.3)	
Duration of symptoms	≤3 months	41 (87.2)	6 (12.8)	0.21
	>3 months	65 (94.2)	4 (5.8)	

3.1 Discussion

The present study evaluated the diagnostic performance of CT enterography (CTE) in detecting small bowel tuberculosis (SBTB) in a pediatric population, demonstrating a sensitivity of 87.1%, specificity of 92.9%, positive predictive value (PPV) of 81.8%, negative predictive value (NPV) of 95.2%, and overall diagnostic accuracy of 91.4% against histopathology as the gold standard. These findings are broadly consistent with, yet contextually distinct from, the existing literature on CTE performance across various small bowel pathologies.

Israrahmed *et al*. demonstrated that systematic CT enterography (CTE) reporting improves discrimination between intestinal tuberculosis (ITB) and Crohn's disease (CD), and their reported CTE sensitivity for ITB (~90%) closely mirrors the high sensitivity

(87.1%), specificity (92.9%) and overall accuracy (91.4%) observed in this pediatric cohort, supporting CTE as a reliable noninvasive diagnostic tool in TB-endemic settings (5).

Choudhury *et al*. highlighted necrotic mesenteric or ileocecal lymphadenopathy as a highly specific imaging sign of gastrointestinal TB (pooled specificity ≈100%) despite variable pooled sensitivity, which contextualizes the finding that low-attenuating necrotic nodes were the most frequent CTE abnormality (81.8% of CTE-positive patients) and supports their value as a radiologic discriminator in children (9,10).

Lee *et al*. (APPSPGHAN) and other investigators have emphasized the diagnostic overlap between ITB and CD and the need for multimodal assessment (imaging, endoscopy, microbiology), thereby explaining why imaging-based algorithms—including CTE–histopathology concordance—should be interpreted alongside endoscopic and laboratory data to minimize misclassification (11,8).

Lü *et al*. validated algorithmic approaches combining laboratory, endoscopic and imaging variables and thereby reinforced the strategy of using CTE as a major component of a multiparametric diagnostic pathway; stratified concordance across age, sex, BMI and symptom duration further suggests reproducible CTE performance in diverse pediatric subgroups (12).

Ma *et al*. reported that CTE and gastrointestinal ultrasound can accurately assess response to anti-tubercular therapy (ATT), supporting the role of CTE in both initial diagnosis and noninvasive follow-up in children when histology or microbiology is non-diagnostic (13).

Seth *et al*. and Narang *et al*. described advanced CT techniques (perfusion CT, spectral dual-layer CT) and quantitative biomarkers (visceral-to-subcutaneous fat ratio) that may further refine differentiation between ITB and CD and could explain or reduce the false positives and false negatives observed in this series (14,15).

Lee *et al*. (Scientific Reports) and Maino *et al*. have underscored pediatric radiation concerns and demonstrated that reduced-dose CTE protocols can preserve diagnostic accuracy; therefore, these findings support judicious use of CTE with dose optimization or preferential use of MRE/ultrasound where available to limit radiation exposure (16,17).

Kedia and colleagues have emphasized the limited sensitivity of microbiological tests and the occasional need for therapeutic ATT trials in endemic regions; consequently, the high negative predictive value (95.2%) observed is clinically useful when tissue confirmation is difficult (19,9).

Limsrivilai *et al*. also highlighted imaging features favoring CD (comb sign, skip lesions, fibrofatty proliferation), explaining residual diagnostic discordance and reinforcing the need for integrated radiologic interpretation (8).

Lü *et al*. and other authors recommend prospective, multicenter validation of combined clinical–endoscopic–radiologic models; these pediatric findings support inclusion of CTE in such models while emphasizing the need for incorporation of advanced imaging biomarkers and radiation-sparing strategies in future research (12,14).

This was a single-center study with a relatively small sample size, which may limit generalizability. Only pediatric patients were included, restricting applicability to adult populations. Potential interobserver variability was minimized but not fully assessed, which may influence imaging interpretation.

4 CONCLUSION

CT enterography provides high sensitivity and specificity in diagnosing small bowel tuberculosis and may support early, accurate, and noninvasive clinical decision-making in pediatric populations.

REFERENCES

Akhtar TS, Ashraf B, Zahid K, Abbas S, Sana A, Khan AR, *et al*. Evaluation of factors contributing to diagnosis of Crohn's disease in the face of increasing trend in Pakistan. *Crohn's & Colitis 360*. 2024;6(1):otae015. https://doi.org/10.1093/crocol/otae015

Choudhury A, Dhillon J, Sekar A, Gupta P, Singh H, Sharma V. Differentiating gastrointestinal tuberculosis and Crohn's disease: a comprehensive review. *BMC Gastroenterology*. 2023;23(1). https://doi.org/10.1186/s12876-023-02887-0

Dhanya SB, Sunil HC, Gowthami GS, Ravi Kumar Y, Suhas CN, Praveen Kumar M. Exploring the use of computed tomography enterography in the evaluation of small

bowel disease: a prospective study. *Cureus*. 2024;16(5):e60915. https://doi.org/10.7759/cureus.60915

Israrahmed A, Yadav RR, Yadav G, Alpana, Helavar RV, Rai P, *et al*. Systematic reporting of computed tomography enterography/enteroclysis as an aid to reduce diagnostic dilemma when differentiating between intestinal tuberculosis and Crohn's disease: a prospective study at a tertiary care hospital. *JGH Open*. 2021;5(2):180–189. https://doi.org/10.1002/jgh3.12478

Kedia S, Ahuja V. Intestinal tuberculosis or Crohn's disease: illusion or delusion or allusion. *JGH Open*. 2021;5(2):177–179. https://doi.org/10.1002/jgh3.12495

Kedia S, Das P, Madhusudhan KS, Dattagupta S, Sharma R, Sahni P, *et al*. Differentiating Crohn's disease from intestinal tuberculosis. *World Journal of Gastroenterology*. 2019;25(4):418–432. https://doi.org/10.3748/wjg.v25.i4.418

Lee D, You M, Park S, Seo M, Park S. Comparison of diagnostic performance of ultrasonography and magnetic resonance enterography in Crohn's disease: a systematic review and meta-analysis. *Diagnostics*. 2022;12(8):2008. https://doi.org/10.3390/diagnostics12082008

Lee W, Arai K, Alex G, Treepongkaruna S, Kim K, Choong C, *et al*. Management and monitoring of pediatric inflammatory bowel disease in the Asia-Pacific region: a position paper by APPSPGHAN PIBD Working Group. *Journal of Gastroenterology and Hepatology*. 2023;38(4):510–522. https://doi.org/10.1111/jgh.16084

Lee Y, Hwang J, Ryu H, Kim T, Kim Y, Park J, *et al*. Image quality and diagnostic accuracy of reduced-dose CT enterography with model-based iterative reconstruction in pediatric Crohn's disease patients. *Scientific Reports*. 2022;12(1). https://doi.org/10.1038/s41598-022-06246-z

Limsrivilai J, Lee C, Prueksapanich P, Harinwan K, Sudcharoen A, Cheewasereechon N, *et al*. Validation of models using basic parameters to differentiate intestinal tuberculosis from Crohn's disease: a multicenter study from Asia. *PLoS One*. 2020;15(11):e0242879. https://doi.org/10.1371/journal.pone.0242879

Lü Y, Chen Y, Peng X, Yao J, Zhong W, Li C, *et al*. Development and validation of a new algorithm model for differential diagnosis between Crohn's disease and intestinal tuberculosis. *BMC Gastroenterology*. 2021;21(1). https://doi.org/10.1186/s12876-021-01838-x

Ma L, Zhu Q, Li Y, Li W, Wang X, Liu W, *et al*. The potential role of CT enterography and gastrointestinal ultrasound in evaluation of anti-tubercular therapy response. *BMC Gastroenterology*. 2019;19(1). https://doi.org/10.1186/s12876-019-1030-0

Maino C, Mariani I, Drago S, Franco P, Giandola T, Donati F, *et al*. Computed tomography and magnetic resonance enterography: from protocols to diagnosis. *Diagnostics*. 2024;14(22):2584. https://doi.org/10.3390/diagnostics14222584

Mansour HH, Alajerami YS, Abushab KM, Najim AA, Quffa KM. Diagnostic accuracy of CT enterography correlated to histopathology in the diagnosis of small bowel Crohn's disease. *Irish Journal of Medical Science*. 2022;191(6):2605–2610. https://doi.org/10.1007/s11845-021-02917-4

Narang H, Kedia S, Ahuja V. New diagnostic strategies to distinguish Crohn's disease and gastrointestinal tuberculosis. *Current Opinion in Infectious Diseases*. 2024;37(5):392–401. https://doi.org/10.1097/QCO.0000000000001054

Saade C, Nasr L, Sharara A, Barada K, Soweid A, Murad F, *et al*. Crohn's disease: a retrospective analysis between computed tomography enterography, colonoscopy, and histopathology. *Radiography*. 2019;25(4):349–358. https://doi.org/10.1016/j.radi.2019.04.007

Seth R, Gupta P, Debi U, Prasad K, Singh H, Sharma V. Perfusion computed tomography may help in discriminating gastrointestinal tuberculosis and Crohn's disease. *Diagnostics*. 2023;13(7):1255. https://doi.org/10.3390/diagnostics13071255

Sharma A, Goyal A, Kandasamy D, Kedia S, Ahuja V, Sharma R. Imaging in abdominal tuberculosis. *Indographics*. 2024;3(2):45–63. https://doi.org/10.1055/s-0044-1787837

Zaman Z, Majid Z. Inflammatory bowel disease in Pakistan: low prevalence or underdiagnosis? *World Journal of Gastrointestinal Pharmacology and Therapeutics*. 2024;15(6):99226. https://doi.org/10.4292/wjgpt.v15.i6.99226

Authors' Contribution

All authors contributed equally to the development of this article.

Data availability

All datasets relevant to this study's findings are fully available within the article.

How to cite this article (APA)

Razzaq, M., Goraya, A., Akram, A., Ashraf, M., & Javaid, R. (2026). DIAGNOSTIC ACCURACY OF CT ENTEROGRAPHY IN THE DIAGNOSIS OF SMALL BOWEL DISEASES KEEPING HISTOPATHOLOGY AS GOLD STANDARD. Veredas Do Direito, 23(6), e235982. https://doi.org/10.18623/rvd.v23.5982