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## Retrospective Study

**Spectrum of venous thromboembolism in adult patients with ulcerative colitis in Pakistan: A single center retrospective study**

Masood Muhammad Karim, Hafsa Shaikh, Faisal Wasim Ismail

**Specialty type:** Medicine, research and experimental**Provenance and peer review:** Unsolicited article; Externally peer reviewed.**Peer-review model:** Single blind**Peer-review report's classification****Scientific Quality:** Grade C, Grade D**Novelty:** Grade B, Grade B**Creativity or Innovation:** Grade B, Grade C**Scientific Significance:** Grade C, Grade C**P-Reviewer:** Gao XZ; Serban ED**Received:** July 26, 2024**Revised:** August 17, 2024**Accepted:** September 6, 2024**Published online:** February 26, 2025**Processing time:** 121 Days and 13.7 Hours**Masood Muhammad Karim, Faisal Wasim Ismail**, Department of Medicine, The Aga Khan University Hospital, Karachi 74800, Pakistan**Hafsa Shaikh**, Department of General Surgery, The Aga Khan University Hospital, Karachi 74800, Pakistan**Corresponding author:** Faisal Wasim Ismail, FACG, FACP, FCPS, MBBS, Associate Professor, Department of Medicine, The Aga Khan University Hospital, National Stadium Road, Karachi 74800, Pakistan. [faisal.ismail@aku.edu](mailto:faisal.ismail@aku.edu)**Abstract****BACKGROUND**

Patients with inflammatory bowel disease are at a 2-8-fold higher risk of developing venous thromboembolism (VTE) as compared to the general population. Although the exact pathogenesis is unclear, the literature suggests that increased risk of thromboembolic events in such patients occurs as a result of increased coagulation factors, inflammatory cytokines, and reduction in anticoagulants leading to a prothrombotic state.

**AIM**

To assess the prevalence, risk factors, management, and outcome of ulcerative colitis (UC) patients who develop VTE.

**METHODS**

This was a retrospective chart review done in The Gastroenterology Department of The Aga Khan University Hospital. Data was collected from medical records for all patients admitted with a diagnosis of UC from January 2012 to December 2022.

**RESULTS**

Seventy-four patients fulfilled the inclusion criteria. The mean  $\pm$  SD of age at presentation of all UC patients was 45 years  $\pm$  10 years whereas for those who developed VTE, it was 47.6 years  $\pm$  14.7 years. Hypertension and diabetes were the most common co-morbid seen among UC patients with a frequency of 17 (22.9%) and 12 (16.2%), respectively. A total of 5 (6.7%) patients developed VTE. Deep venous thrombosis was the most common thromboembolic phenomenon seen in 3 (60%) patients. All the patients with UC and concomitant VTE were discharged home (5; 100%).

## CONCLUSION

The prevalence of VTE with UC in Pakistani patients corresponds with the international literature. However, multi-centric studies are required to further explore these results.

**Key Words:** Deep venous thrombosis; Inflammatory bowel disease; Low-middle-income country; Anticoagulation; Protein C deficiency

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**Core Tip:** This study highlights the paucity of data available on prevalence of venous thromboembolism in patients with ulcerative colitis (UC) in a low to middle income setting. Although previous studies have shown that patients with acute flare of UC were likely to develop thromboembolism, our data suggests otherwise. Furthermore, this study opens up a new question regarding whether UC is associated with thrombophilic conditions such as protein C deficiency.

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## INTRODUCTION

There are two main types of inflammatory bowel disease (IBD): Crohn's disease (CD) and ulcerative colitis (UC). Both conditions occur because of genetic, epigenetic, microbiota, and environmental predisposition, resulting in inflammation of the intestine with varying degrees of severity. These two conditions can have overlapping symptoms such as abdominal pain, diarrhoea, nausea, anorexia, and weight loss. They can manifest with both intestinal as well as extraintestinal symptoms. One of these extraintestinal manifestations is venous thromboembolism (VTE). VTE can range from deep venous thrombosis (DVT) in limbs to cerebral VTE[1,2].

Patients with IBD are at a 2-8-fold higher risk of developing VTE as compared to the general population. Although the exact pathogenesis is unclear, the literature suggests that increased risk of thromboembolic events (TED) in such patients occurs as a result of increased coagulation factors, inflammatory cytokines, and reduction in anticoagulants leading to a prothrombotic state[3]. Risk factors for VTE development in such patients include older age, acute flare of disease, pregnancy, abdominal surgery, total parenteral nutrition, immunosuppressive medications, and indwelling central venous lines[4].

Most of the literature available on the development of TED in IBD comes from Western studies. There is a significant lack of data from the south Asian region regarding this very important morbidity. Our study aimed to look at the prevalence, risk factors, management, and outcomes of TED in patients with UC in our hospital.

## MATERIALS AND METHODS

### Methodology

This was a retrospective chart review done in The Gastroenterology Department of The Aga Khan University Hospital, a tertiary care hospital in Karachi, Pakistan. Data was collected from all patients admitted with a diagnosis of UC by non-probability convenience sampling from January 2012 to December 2022. This study was conducted in compliance with the principles of the Declaration of Helsinki, the principles of good clinical practice, and all the applicable regulatory requirements after approval from The Aga Khan University's Ethical Review Committee.

All adult patients admitted to the hospital with a diagnosis of biopsy proven UC who fulfilled the inclusion criteria were included. Patient with acute flare of UC and non-UC colitis-related admission were both included in the study. Patients with incomplete records, bed bound, or with a recent history of major surgery (within 3 mo) were excluded.

UC patients were identified from ICD coding 10. Patient demographics, presentations, treatment options, and outcomes were recorded on a specially designed proforma.

Data was collected from patient's medical records. Variables included socio-demographics, duration of UC, presenting complaints, type of VTE, and treatment received. Patient outcomes were measured in terms of in-hospital complications, in-hospital mortality, and 30-d mortality. The objective of this study was to evaluate the frequency of thromboembolism in patients with UC, its spectrum of presentation, and outcome.

### Statistical analysis

Data was analyzed using Statistical Package for the Social Sciences version 26. Qualitative variables are expressed as frequencies and percentages whereas quantitative variables are articulated as the mean  $\pm$  SD.

## RESULTS

Data was collected from 2012 to 2022, during which 143 suspected UC patients were admitted, of which 74 fulfilled the inclusion criteria. The mean  $\pm$  SD of age at presentation of all UC patients was 45 years  $\pm$  10 years whereas for those who developed VTE, it was 47.6 years  $\pm$  14.7 years. Hypertension and diabetes were the most common co-morbid seen among UC patients with a frequency of 17 (22.9%) and 12 (16.2%) respectively. The characteristics of UC patients are detailed in Table 1.

A total of 5 (6.7%) patients developed VTE. Among the 5 patients with VTE, the mean  $\pm$  SD of duration of UC was 9.6 years  $\pm$  4.8 years. DVT was the most common thromboembolic phenomenon [3 (60%)] with lower limb involvement in 2 out of 5 patients and upper limb involvement in 1 out of 5 patients. There was 1 patient with mesenteric venous thrombosis (20%) and another one with cerebral venous sinus thrombosis (20%). The majority of the patients with VTE presented with lower limb swelling consistent with DVT or with abdominal pain (2; 40%). The average duration of hospital stay was 5.8 d  $\pm$  3 d.

In terms of risk factors, it was noted that almost half of the patients had a pre-existing thrombophilic condition such as protein C deficiency and antiphospholipid antibody (2; 40%). One of the patients had a previous history of DVT as well (20%). The findings of patients with VTE are summarized in Table 2.

Therapeutic anticoagulation was given in 3/5 patients (60%). One patient had an *in vitro* culture filter inserted due to low haemoglobin whereas no treatment was given to the patient with upper limb DVT due to mild clinical symptoms and small sized clot as well as low haemoglobin. All the patients with UC and concomitant VTE were discharged home (5; 100%).

## DISCUSSION

IBD is a known risk factor for VTE with UC patients being at more risk as compared to CD. VTE, a term that encompasses both DVT and pulmonary embolism (PE), is an important extra-intestinal complication in patients with UC that can lead to significant morbidity and mortality if left unrecognized and untreated. The incidence of VTE in such patients ranges from 7.6% to 21.8% corresponding to our study where the incidence was found to be 6.7%.

Further independent risk factors for VTE in such patients include older age, prolong hospital stay, steroid use, and surgical intervention[5,6]. A significant risk factor for VTE seen in several studies is the presence of acute flare of IBD thereby justifying the use of prophylactic anticoagulation in such patients. However in our study none of the patients who developed VTE had an acute flare[7,8]. Furthermore, diabetes, hypertension, and smoking were the commonly observed co-morbidities in these patients, hence further worsening the risk of VTE in an already high risk population[8]. Similar findings were present in our study as well, with hypertension and diabetes being the most common co-morbidities amongst the patients admitted with a diagnosis of UC.

The pathogenesis of VTE in UC is multifactorial and not completely understood. UC leads to a state of chronic inflammation leading to endothelial damage which activates platelet aggregation as well as coagulation cascade. Furthermore, the coagulation cascade is also directly activated as a result of proinflammatory cytokines released in UC[9].

A study by Naito *et al*[10] showed that 1 in 7 patients with IBD will have a genetically higher risk of developing TED with an odds ratio of 2.5 as compared to the rest of the population with IBD. These patients are at risk of developing multiple TED and present at a comparatively younger age. The European Crohn's and Colitis Organization recommends the use of low molecular weight heparin thromboprophylaxis in patients with IBD during hospitalization for surgery or due to any medical cause[11]. However in our population this was not followed. The majority of our patients who developed VTE had a co-existing hereditary thrombophilic condition (60%). Usual testing for hereditary thrombophilia is controversial and is usually recommended for patients with unprovoked DVT with a positive family history of DVT or PE in first-degree relatives[12]. Such patients usually require prolonged prophylactic anticoagulation in order to prevent further similar attacks. The prevalence of thrombophilia in IBD has been reported to be around 33% which is similar to that of the general population[13]. A study by Weng *et al*[14] on 2562 Asian IBD patients showed a two-fold increased risk of VTE as compared to the general population. However, as the absolute risk of VTE in Asian patients is less as compared to Western population, this study suggested close monitoring in IBD patients rather than routine prophylactic anticoagulation use[14].

To the best of our knowledge, this is the first study that highlights the prevalence of VTE in the Pakistani population with UC. Hence this study will pave the way for further multicenter studies to assess the true burden of this disease in low-middle-income countries.

## CONCLUSION

The frequency of VTE in patients with UC is comparable to published literature, and is not associated with a flare of disease in this single centre study from Pakistan. Further multicenter randomized studies are required to assess the true burden of this disease in low-middle-income countries.

**Table 1 Socio-demographic characteristics of patients admitted with ulcerative colitis, *n* (%)**

Variable	Frequency	
Age (mean ± SD) (years)	45 ± 10	
Gender	Female	43 (58.1)
	Male	31 (41.8)
Co-morbidities	Hypertension	17 (22.9)
	Diabetes	12 (16.9)
	Ischemic heart disease	10 (13.5)
	Hypothyroidism	5 (6.7)
	Rheumatoid arthritis	3 (4)
	Celiac disease	2 (2.7)
Acute flare	Present	23 (31)
	Absent	51 (69)

**Table 2 Characteristics of patients with ulcerative colitis who developed venous thromboembolism, *n* (%)**

Variable	Frequency	
Gender	Male	4 (80)
	Females	1 (20)
Co-morbidities	Interstitial lung disease	1 (20)
	Hypertension	2 (40)
	Diabetes	1 (20)
	Thrombophilia	2 (40)
	Chronic kidney disease	1 (20)
	Anemia	1 (20)
Presenting complaints	Lower limb swelling and pain	2 (40)
	Abdominal pain	2 (40)
	Vomiting	1 (20)
	Seizures	1 (20)
Type of venous thromboembolism	Deep venous thrombosis	3 (60)
	Mesenteric venous thrombosis	1 (20)
	Cerebral venous sinus thrombosis	1 (20)
Acute flare	Present	0 (0)
	Absent	5 (100)
Treatment given	Rivaroxaban	1 (20)
	Enoxaparin	1 (20)
	None	1 (20)
	Warfarin	1 (20)
	Inferior vena cava filter	1 (20)

**FOOTNOTES**

**Author contributions:** Karim MM and Shaikh H were responsible for data collection and manuscript writing; Ismail FW was responsible for study conception and manuscript formatting; all the authors have read and approved the final version of the manuscript.

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## REFERENCES

- Guillo L, Amiot A, Serrero M, Altwegg R, Roblin X, Atanasiu C, Buisson A, Le Berre C, Reenaers C, Gornet JM, Laharie D, Abitbol V, Biron A, Caron B, Nancey S, Chupin A, Blain A, Vuitton L, Caillo L, Kirchgessner J, Nachury M, Peyrin-Biroulet L; FOCUS Study Group. Prevalence of Self-Reported Venous Thromboembolism and Cardiovascular Risk Factors in Patients with Ulcerative Colitis: The GETAID FOCUS Study. *Dig Dis Sci* 2022; **67**: 4525-4532 [PMID: 35246801 DOI: 10.1007/s10620-022-07445-4]
- Murthy SK, Robertson McCurdy AB, Carrier M, McCurdy JD. Venous thromboembolic events in inflammatory bowel diseases: A review of current evidence and guidance on risk in the post-hospitalization setting. *Thromb Res* 2020; **194**: 26-32 [PMID: 32563061 DOI: 10.1016/j.thromres.2020.06.005]
- Gala D, Newsome T, Roberson N, Lee SM, Thekkannal M, Shah M, Kumar V, Bandaru P, Gayam V. Thromboembolic Events in Patients with Inflammatory Bowel Disease: A Comprehensive Overview. *Diseases* 2022; **10**: 73 [PMID: 36278572 DOI: 10.3390/diseases10040073]
- Cheng K, Faye AS. Venous thromboembolism in inflammatory bowel disease. *World J Gastroenterol* 2020; **26**: 1231-1241 [PMID: 32256013 DOI: 10.3748/wjg.v26.i12.1231]
- Zhang H, Wang X. Risk Factors of Venous Thromboembolism in Inflammatory Bowel Disease: A Systematic Review and Meta-Analysis. *Front Med (Lausanne)* 2021; **8**: 693927 [PMID: 34262920 DOI: 10.3389/fmed.2021.693927]
- Itabashi M, Ikeuchi H, Kimura H, Fukushima K, Fujii H, Nezu R, Futami K, Sugita A, Suzuki Y, Hisamatsu T. Perioperative Venous Thromboembolism in Ulcerative Colitis: A Multicenter Prospective Study in Japan. *Crohns Colitis* 2021; **3**: otab024 [PMID: 36776649 DOI: 10.1093/crocol/otab024]
- Coremans L, Strubbe B, Peeters H. Venous thromboembolism in patients with inflammatory bowel disease: review of literature and practical algorithms. *Acta Gastroenterol Belg* 2021; **84**: 79-85 [PMID: 33639697 DOI: 10.51821/84.1.910]
- Heo CM, Kim TJ, Kim ER, Hong SN, Chang DK, Yang M, Kim S, Kim YH. Risk of venous thromboembolism in Asian patients with inflammatory bowel disease: a nationwide cohort study. *Sci Rep* 2021; **11**: 2025 [PMID: 33479464 DOI: 10.1038/s41598-021-81657-y]
- Arvanitakis KD, Arvanitaki AD, Karkos CD, Zintzaras EA, Germanidis GS. The risk of venous thromboembolic events in patients with inflammatory bowel disease: a systematic review and meta-analysis. *Ann Gastroenterol* 2021; **34**: 680-690 [PMID: 34475739 DOI: 10.20524/aog.2021.0631]
- Naito T, Botwin GJ, Haritunians T, Li D, Yang S, Khrom M, Braun J; NIDDK IBD Genetics Consortium, Abbou L, Mengesha E, Stevens C, Masamune A, Daly M, McGovern DPB. Prevalence and Effect of Genetic Risk of Thromboembolic Disease in Inflammatory Bowel Disease. *Gastroenterology* 2021; **160**: 771-780 [PMID: 33098885 DOI: 10.1053/j.gastro.2020.10.019]
- Gordon H, Burisch J, Ellul P, Karmiris K, Katsanos K, Allocca M, Bamias G, Barreiro-de Acosta M, Braithwaite T, Greuter T, Harwood C, Juillerat P, Lobaton T, Müller-Ladner U, Noor N, Pellino G, Savarino E, Schramm C, Soriano A, Michael Stein J, Uzzan M, van Rheeën PF, Vavricka SR, Vecchi M, Zuily S, Kucharzik T. ECCO Guidelines on Extraintestinal Manifestations in Inflammatory Bowel Disease. *J Crohns Colitis* 2024; **18**: 1-37 [PMID: 37351850 DOI: 10.1093/ecco-jcc/jjad108]
- Moukalled NM, Hashash JG, Taher AT. Inflammatory Bowel Disease: An Indication to Screen for Thrombophilia? *Diseases* 2022; **10**: 14 [PMID: 35323181 DOI: 10.3390/diseases10010014]
- Solem CA, Loftus EV, Tremaine WJ, Sandborn WJ. Venous thromboembolism in inflammatory bowel disease. *Am J Gastroenterol* 2004; **99**: 97-101 [PMID: 14687149 DOI: 10.1046/j.1572-0241.2003.04026.x]
- Weng MT, Park SH, Matsuoka K, Tung CC, Lee JY, Chang CH, Yang SK, Watanabe M, Wong JM, Wei SC. Incidence and Risk Factor Analysis of Thromboembolic Events in East Asian Patients With Inflammatory Bowel Disease, a Multinational Collaborative Study. *Inflamm Bowel Dis* 2018; **24**: 1791-1800 [PMID: 29726897 DOI: 10.1093/ibd/izy058]





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