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Name of Journal: *World Journal of Gastrointestinal Pathophysiology*
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Manuscript Type: OPINION REVIEW

Atherosclerotic cardiovascular disease in inflammatory bowel disease: The role of chronic inflammation

Weissman *et al.* Inflammation in IBD and ASCVD

Abstract

Inflammatory bowel disease (IBD) causes systemic vascular inflammation. The increased risk of venous as well as arterial thromboembolic phenomena in IBD is well established. More recently, a relationship between IBD and atherosclerotic cardiovascular disease (ASCVD) has been postulated. Systemic inflammatory diseases, such as rheumatoid arthritis and systemic lupus erythematosus, have well characterized cardiac pathologies and treatments that focus on prevention of disease associated ASCVD. The impact of chronic inflammation on ASCVD in IBD remains poorly characterized. This manuscript aims to review and summarize the current literature pertaining to IBD and ASCVD with respect to pathophysiology and impact of medications in order to encourage further research that can improve understanding and help develop clinical recommendations for prevention and management of ASCVD in patients with IBD.

Match Overview

1	Crossref 39 words Muhammad Siyab Panhwar, Emad Mansoor, Sadeer G Al-Kindi, Preetika Sinh et al. "Risk of Myocardial Infarction..."	1%
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Connection between the heart and the gut | Heart

<https://heart.bmj.com/content/105/15/1148> ▾

Aug 01, 2019 · The patient was treated with corticosteroids and monoclonal antibodies and responded well. The pathophysiological mechanisms underlying cardiac manifestations of **inflammatory bowel disease** are incompletely understood but may occur in up to one-third of patients with **inflammatory bowel disease**...

Cited by: 1 Author: Bostjan Berlot, Iwan Harries, Chiara Buccia...
Publish Year: 2019

Link between heart attacks and inflammatory bowel disease ...

<https://www.sciencedaily.com/releases/2018/03/180306153734.htm> ▾

Mar 06, 2018 · University Hospitals Harrington Heart & Vascular Institute researchers **Muhammad Panhwar**, MD, and Mahazarin Ginwalla, MD, recently concluded a study of more than 22 million patients that suggests a strong connection **between Inflammatory Bowel Disease (IBD)** and the development of **heart disease** and **heart attacks**.

The Link Between Inflammatory Bowel Disease and Heart Attacks

<https://www.uhhospitals.org/.../ibd-and-heart-attacks> ▾

May 22, 2018 · "Inflammation has long been recognized to play a key role in the development of **heart disease**," Dr. Ginwalla says. "Our study shows an increased risk of having a **heart attack in patients with inflammatory bowel disease**. This increased cardiovascular risk persisted,..."

Inflammatory bowel disease and the risk for cardiovascular ...

<https://www.sciencedirect.com/science/article/pii/S1050173819301392>

Several rheumatologic conditions, such as **Rheumatoid Arthritis (RA)** and **Systemic Lupus Erythematosus (SLE)**, are linked to CVD; however, the association between Inflammatory Bowel Disease (IBD) and **CVD** has not been well established .

Author: Allison Bigeh, Alexandra Sanchez, Cami... Publish Year: 2019

Inflammatory bowel disease may raise heart attack risk

<https://www.medicalnewstoday.com/articles/321088> ▾

Mar 01, 2018 · **Inflammatory bowel disease** raises the risk of **heart attack**. Also, the risk is independent of traditional risk factors such as **high blood pressure**, **smoking**, **diabetes**, and **high cholesterol**.

Heal Your Heart Through Your Gut: Understanding the Gut ...

<https://www.viome.com/blog/heal-your-heart-through...> ▾

Dec 17, 2018 · Studies show that **gut health** and **heart health** are intricately **linked** and the key to a **healthy heart** might lay within your **gut**. **Heart disease** is the leading cause of **death** in the United States. So, it's no surprise that nearly everyone knows someone who's been affected. The effects of **heart disease** are devastating and can take families by surprise.

Researchers Discover Gut-Heart Connection in Coronary ...

<https://consultqd.clevelandclinic.org/researchers...> ▾

May 17, 2015 · A newly discovered **link between coronary artery disease and the overgrowth of bacteria in the small intestine** presented by Cleveland Clinic researchers at **Digestive Disease Week 2015** today means that there may soon come a day when the standard of care will be for gastroenterologists and cardiologists to exchange patients for additional evaluations.

Author: Digestive, Digestive

Risk of cardiovascular disease in inflammatory bowel disease

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4133533>

Aug 15, 2014 · Inflammatory bowel disease (IBD), comprising **ulcerative colitis (UC)** and **Crohn's disease (CD)** are systemic, chronic inflammatory conditions that predominately affect the **gastrointestinal tract** but are also characterized by numerous extraintestinal manifestations, **assumedly** caused by concomitant systemic inflammation.

Cited by: 21 Author: Nynne Nyboe Andersen, Tine Jess
Publish Year: 2014

Cardiovascular complications in inflammatory bowel disease

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4366573>

Inflammatory bowel diseases (IBDs), i.e. **Crohn's disease (CD)** and **ulcerative colitis (UC)**, are **chronic inflammatory diseases** of the intestines that bear many venous vascular comorbidities, e.g. **deep venous thrombosis** or **portal vein thrombosis**.

Cited by: 17 Author: Rudolf Schicho, Gunther Marsche, Martin S...
Publish Year: 2015

Heart Health and Healthy Guts

<https://www.healthline.com/health-news/3-ways...> ▾

Jun 07, 2018 · A lack of diversity in **healthy bacteria in the gut** has been associated with **diabetes**, **obesity**, and **inflammatory stomach and bowel diseases**. Additionally, the researchers pinpointed which microbes were tied to a lower risk of arterial stiffening. They're the same ones previously **linked to a lower obesity risk**.



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[Cardiovascular complications in inflammatory bowel disease](#)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4366573>

Over the past years, a growing number of studies have indicated that patients suffering from **inflammatory bowel disease (IBD)** have an increased risk of developing **cardiovascular disease**. Both are **chronic inflammatory diseases** and share certain pathophysiological mechanisms that may influence each other.

Cited by: 17**Author:** Rudolf Schicho, Gunther Marsche, Ma...**Publish Year:** 2015

[Chronic Inflammatory Diseases and Atherosclerotic ...](#)

www.eurekaselect.com/158915/article ▾

Abstract: **Inflammation** plays a significant **role** in **atherosclerosis** and **cardiovascular disease** (CVD). Patients with **chronic inflammatory diseases** are at increased risk of CVD, but it is debated whether this association is causal or dependent on shared risk factors, other exposures, genes, and/or inflammatory pathways.

Cited by: 2**Author:** Peter Riis Hansen**Publish Year:** 2018

[Cardiovascular Diseases in Chronic Inflammatory Disorders ...](#)

<https://www.acc.org/latest-in-cardiology/articles/...> ▾

Introduction. **Inflammation** plays a crucial **role** in the process of atherogenesis. 1 **Cardiovascular disease** (CVD) is a major cause of mortality and morbidity in patients with **chronic** inflammatory disorders, such as rheumatoid arthritis (RA), systemic lupus erythematosus (SLE), systemic sclerosis (SSc), **chronic** human immunodeficiency virus (HIV) infection, and psoriasis. 2,3 Patients with **chronic** ...

[Inflammatory bowel disease and the risk for cardiovascular ...](#)

<https://www.sciencedirect.com/science/article/pii/S1050173819301392>

Systemic **inflammation** has been linked to accelerated **atherosclerosis** and **IBD** itself is a state of **chronic inflammation** [84,85]. Patients with **IBD** have been shown to have increased carotid



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Epidemiology, risk factors and management of ...

<https://www.ncbi.nlm.nih.gov/pubmed/25446727>

attributable to **inflammation-mediated atherosclerosis**. Patients with IBD often have **premature atherosclerosis** and have biochemical and genetic markers similar to those seen in patients with **atherosclerotic cardiovascular disease**. The role of **chronic inflammation** in **IBD-associated cardiovascular disease** merits further

Cited by: 63

Author: Siddharth Singh, Iftikhar Jan Kullo, Darrel...

Publish Year: 2015

Chronic Inflammatory Diseases and Atherosclerotic ...

www.eurekaselect.com/158915/article

Abstract: **Inflammation** plays a significant role in **atherosclerosis** and **cardiovascular disease** (CVD). Patients with **chronic inflammatory diseases** are at increased risk of CVD, but it is debated whether this association is causal or dependent on shared risk factors, ...

Cited by: 2

Author: Peter Riis Hansen

Publish Year: 2018

Cardiovascular Diseases in Chronic Inflammatory Disorders ...

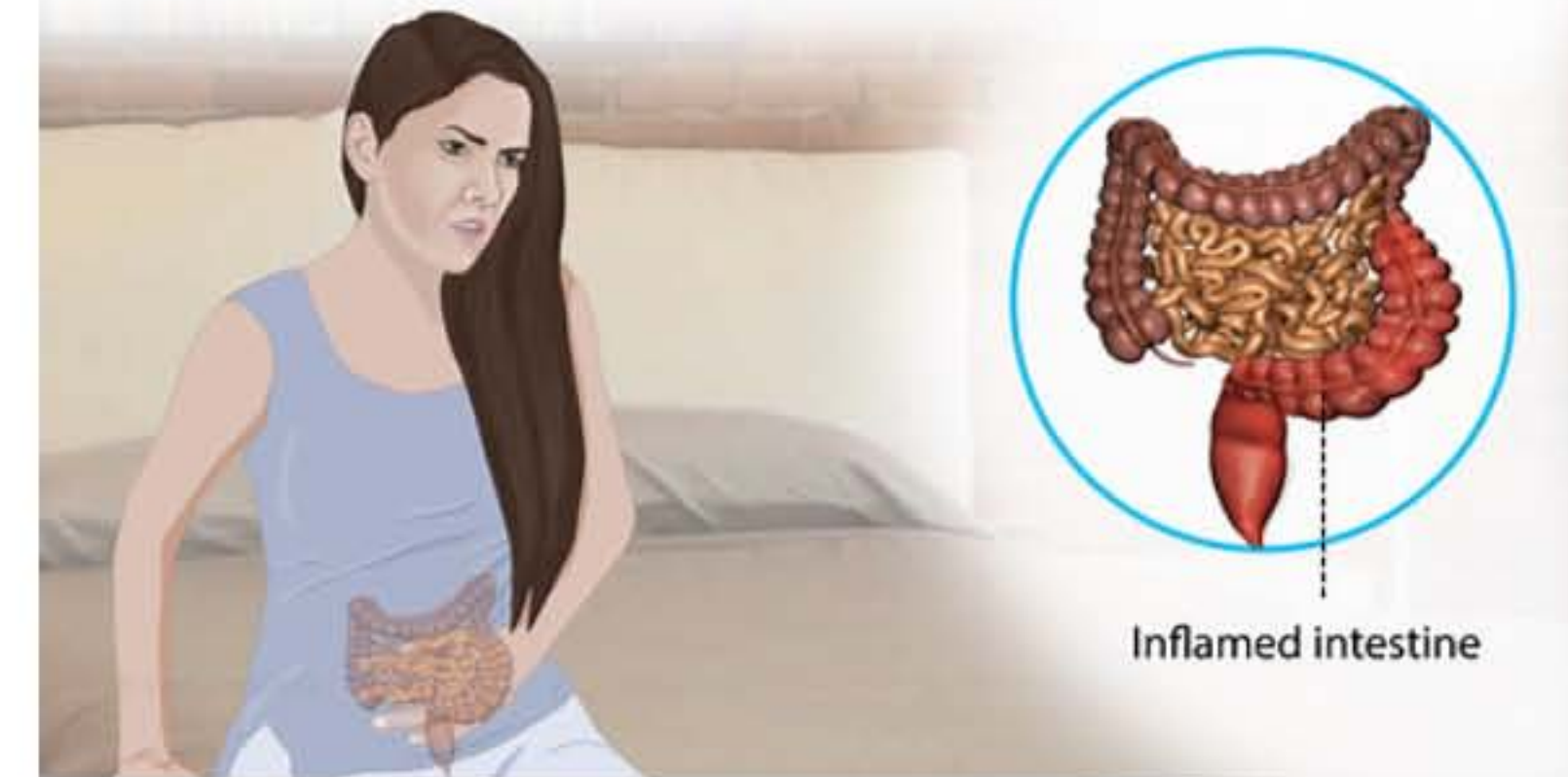
<https://www.acc.org/latest-in-cardiology/articles/...>

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Inflammatory Bowel Disease

Medical Condition

A group of inflammatory conditions of the colon and small intestine



A group of intestinal disorders that cause inflammation of the digestive tract.

🏠 Common (More than 200,000 cases per year in US)

🧪 Often requires lab test or imaging

💊 Treatments can help manage condition, no known cure

🕒 Can be lifelong