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Eosinophils in the gastrointestinal tract and their role in the pathogenesis of major colorectal disorders

Loktionov A. Eosinophils in the gut and colorectal disorders

Alexandre Loktionov

Abstract

Eosinophils are currently regarded as versatile mobile cells controlling and regulating multiple biological pathways and responses in health and disease. These cells store in their specific granules numerous biologically active substances (cytotoxic cationic proteins, cytokines, growth factors, chemokines, enzymes) ready for rapid release. The human gut is the main destination of eosinophils that are produced and matured in the bone marrow and then transferred to target tissues through the circulation. In health the most important functions of gut-residing eosinophils comprise their participation in the maintenance of the protective mucosal barrier and interactions with other immune cells in providing immunity to microbiota of the gut lumen. Eosinophils are closely involved in the development of inflammatory bowel disease (IBD), when their cytotoxic granule proteins cause damage to host tissues. However, their roles in Crohn's disease and ulcerative colitis appear to follow different immune response patterns. Eosinophils in IBD are especially important in altering the structure and protective functions of the mucosal barrier and modulating massive neutrophil influx to the *lamina propria* followed by transepithelial migration to colorectal mucus. IBD-associated inflammatory process involving eosinophils then appears to expand

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Eosinophils in Gastrointestinal disorders- eosinophilic gastrointestinal ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4515563/> ▼ [翻译此页](#)作者: P Mehta - 2015 - 被引用次数: 38 - [相关文章](#)

2015年6月17日 - The **gastrointestinal tract** provides an intriguing organ for are involved but **their** exact **role in the pathogenesis** of esophageal dysfunction, Since EoE is **a** chronic **disease**, it is **important** to remember that if treatment is stopped, gradient of **eosinophils** from the proximal small **intestine** to the **colon**.

Roles and Regulation of Gastrointestinal Eosinophils in Immunity and ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4109658/> ▼ [翻译此页](#)作者: YJ Jung - 2014 - 被引用次数: 66 - [相关文章](#)

As the small **intestine** is **a** milieu rich in substances that stimulate **eosinophils** (23 –25), Non-beneficial **role** of **eosinophils** in gastrointestinal **disorders**: primary EGID and IBD ... with IL-13 having **a** particularly **important role** in EoE **pathogenesis** (Fig. Progression of **colonic** inflammation is also attenuated with depletion of ...

Functional Role of Eosinophils in Gastrointestinal Inflammation

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423915/> ▼ [翻译此页](#)作者: SP Hogan - 2009 - 被引用次数: 22 - [相关文章](#)

跳到**EOSINOPHILIC GASTROINTESTINAL DISORDERS** - **Eosinophil** accumulation in the **GI tract** is **a** common feature of numerous GI **disorders**, including classic EPO in the **pathogenesis** of DSS-induced **colonic** injury. ... **Eosinophils** and EPO have been shown to play an **important role** in RNS - mediated oxidative ...

GASTROINTESTINAL EOSINOPHILIA - NCBI - NIH

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2034402/> ▼ [翻译此页](#)作者: L Zuo - 2007 - 被引用次数: 80 - [相关文章](#)

These **diseases** include primary **eosinophil** associated gastrointestinal **diseases**, ... In fact, the gastrointestinal (**GI**) **tract** is **a** primary site for normal **eosinophil** residence. ... in the lamina propria of the stomach, small **intestine**, cecum, and **colon**. ... As part of **their involvement** in eliciting tissue



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Eosinophils in the gastrointestinal tract and their role in the pathogenesis of major



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Eosinophilic Disorders of the Gastrointestinal Tract ...

<https://clinicalgate.com/eosinophilic-disorders-of-the-gastrointestinal-tract>

Figure 27-1. **Pathogenesis of eosinophilic gastrointestinal disorders.** Allergens (aeroallergens or food allergens) stimulate a cascade of events that results in activation of Th2 cells, mast cells, and eotaxin and promotes **eosinophil** synthesis in the bone marrow and **eosinophil** trafficking to the site of insult through the processes of rolling, adhesion, and diapedesis.

(PDF) Eosinophils in Gastrointestinal Disorders

https://www.researchgate.net/.../278724279_Eosinophils_in_Gastrointestinal_Disorders

Eosinophils in Gastrointestinal Disorders. ... the identification of **eosinophils in the GI tract** has begun to arouse suspicion that they play a **role** in **GI** health and / or disease. 1,2 In contrast ...

Eosinophils in Gastrointestinal disorders- eosinophilic ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4515563>

The **gastrointestinal tract** provides an intriguing organ for considering the **eosinophil's role** in health and disease. The normal **gastrointestinal (GI) tract**, except for the esophagus, is populated by **eosinophils** that are present throughout the mucosa in varying numbers.

Cited by: 26

Author: Pooja Mehta, Glenn T. Furuta

Publish Year: 2015

Eosinophilic disorders of the gastro-intestinal tract: an ...

<https://clinicalmolecularallergy.biomedcentral.com/articles/10.1186/s12948-016-0055-y>

Dec 01, 2016 · **Eosinophilic** diseases of the **gastrointestinal tract**, including **eosinophilic** esophagitis (EoE) and **eosinophilic** gastroenteritis (EGE), are rare chronic pathologies of the **digestive system**, with an immuno-mediated **pathogenesis**. Recent data suggest that, together with the “classic” IgE-response to allergens, also a delayed hypersensitivity mechanism could be involved in the ...

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Eosinophils in the gastrointestinal tract | SpringerLink

<https://link.springer.com/article/10.1007/s11894-006-0024-6> - 翻译此页

作者: ESN Lamous'e-Smith - 2006 - 被引用次数: 29 - 相关文章

Although we know that **eosinophils** reside in the normal **gastrointestinal tract** and ... states, **their** exact **role** in **gut** homeostasis and in the **pathogenesis** of inflammatory. ... article: The **eosinophil** as a therapeutic target in gastrointestinal **disease**. **Eosinophils** alter **colonic** epithelial barrier **function**: **role** for **major** basic protein.

Eosinophilic Gastrointestinal Disorders Pathology - NCBI - NIH

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5775510/> ▼ 翻译此页

作者: MH Collins - 2017 - 被引用次数: 12 - 相关文章

Eosinophilic gastrointestinal **disorders** (EGID) are characterized ... **Eosinophils** are normally found in the mucosa of all parts of the **GI tract** except the esophagus, ... that Th2 immunity is **important** in EoE **pathogenesis**; in fact, IL-13 and IL-5 levels are ... Importantly, CDH26 inhibits CD4+ T-cells in vitro, suggesting **a role** as **a** ...

Roles and Regulation of Gastrointestinal Eosinophils in Immunity and ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4109658/> ▼ 翻译此页

作者: YJ Jung - 2014 - 被引用次数: 72 - 相关文章

The recruitment of murine **eosinophils** to the **gastrointestinal tract** under the steady Non-beneficial **role** of **eosinophils** in gastrointestinal **disorders**: primary EGID and IBD ... with IL-13 having **a** particularly **important role** in EoE **pathogenesis** (Fig. Progression of **colonic** inflammation is also attenuated with depletion of ...

Functional Role of Eosinophils in Gastrointestinal Inflammation - NCBI

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3423915/> ▼ 翻译此页

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Pathogenesis and classification of eosinophil disorders: a review of ...

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3625626/> ▼ 翻译此页