

Name of Journal: *World Journal of Gastrointestinal Oncology*

Manuscript NO: 59123

Manuscript Type: THERAPEUTIC AND DIAGNOSTIC GUIDELINES

Myeloid-derived suppressor cells in gastrointestinal cancers: A systemic review

Maham Farshidpour, Monjur Ahmed, Shilpa Junna, Juanita L Merchant

Abstract

Gastrointestinal (GI) cancers are one of the most common malignancies worldwide, with high rates of morbidity and mortality. Myeloid-derived suppressor cells (MDSCs) are major components of the tumor microenvironment (TME). MDSCs facilitate the transformation of premalignant cells and play roles in tumor growth and metastasis. Moreover, in patients with GI malignancies, MDSCs can lead to the suppression of T cells and natural killer cells. Accordingly, a better understanding of the role and

Match Overview

1	Crossref 20 words Jingjing Xu, Yahui Peng, Mengyuan Yang, Nana Guo, Haitao Liu, Hong Gao, Fangfang Niu, Ruitao Wang, Changsong Wa	1%
2	Internet 15 words crawled on 16-Nov-2020 insights.ovid.com	<1%
3	Internet 15 words crawled on 16-Aug-2020 www.nature.com	<1%



Myeloid-derived Suppressor Cells (MDSCs) In Gastrointestinal Cancers



ALL

IMAGES

VIDEOS

265,000 Results

Any time ▼

Myeloid-derived suppressor cells (MDSCs) are a **diverse population of immature myeloid cells** with immunosuppressive properties that accumulate under pathological conditions including specific types of cancer and infections. Two primary subsets of human and mouse MDSCs known as granulocytic and monocytic MDSCs have been identified.

[Immunology News: Targeting Myeloid-Derived Suppressor ...](#)

[RD www.rndsystems.com/blog/immunology-news-targeting-myeloid-derived-suppre...](http://www.rndsystems.com/blog/immunology-news-targeting-myeloid-derived-suppre...)

Was this helpful?



PEOPLE ALSO ASK

Are mveloid cells terminallv differentiated?

Search Tools

[Turn off Hover Translation \(关闭取](#)

Myeloid-derived suppressor cells in gastrointestinal cancers: A syst



ALL

IMAGES

VIDEOS

408,000 Results

Any time ▼

[Myeloid-derived suppressor cells in gastrointestinal ...](https://pubmed.ncbi.nlm.nih.gov/26729006)

<https://pubmed.ncbi.nlm.nih.gov/26729006>

Considering key roles of myeloid-derived suppressor cells (MDSCs) in the immunosuppression network, levels of MDSCs in patients with cancer are assumed to be of prognostic and predictive value. In this systematic review, we aimed to evaluate the clinical relevancy of MDSCs and their relationship with clinical features and prognosis of **GI malignancies** in patients with GI cancers.

Cited by: 7

Author: Armin Hirbod-Mobarakeh, Armin Hirbod-M...

Publish Year: 2016

[Prognostic role of myeloid-derived suppressor cells in ...](https://bmccancer.biomedcentral.com/articles/10.1186/s12885-018-5086-y)

<https://bmccancer.biomedcentral.com/articles/10.1186/s12885-018-5086-y> ▼

Dec 05, 2018 · Myeloid-derived suppressor cells (MDSCs) is a **heterogeneous population of immature myeloid cells, inhibiting both the innate and adaptive immunity**. Recent studies validated that MDSCs caused immune suppression and promoted cancer progression through various mechanisms. However, the prognostic value of MDSCs in cancer remains controversial.

Cited by: 22

Author: Lisha Ai, Shidai Mu, Yadan Wang, Huafang ...

Publish Year: 2018

[Hepatic myeloid-derived suppressor cells in cancer](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6309820)

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6309820>

They are composed of a heterogeneous population of immature myeloid cells that abrogates innate and adaptive immune responses. Myeloid-derived suppressor cells **accumulate not only in peripheral blood, secondary lymphoid organs and tumors**, but also in the liver in preclinical tumor models and in hepatocellular carcinoma patients.

Cited by: 15

Author: José Medina-Echeverz, Tobias Eggert, Mia...

Publish Year: 2015

[Cells | Free Full-Text | Myeloid-Derived Suppressor Cells ...](https://www.mdpi.com/2073-4409/9/3/561/htm)

<https://www.mdpi.com/2073-4409/9/3/561/htm> ▼

Srivastava, M.K. **Myeloid-derived suppressor cells** inhibit T-cell activation by depleting cystine and cysteine. *Cancer Res.* 2010, 70, 68–77. [Google Scholar] Fletcher, M. l-Arginine depletion blunts antitumor T-cell responses by inducing **myeloid-derived suppressor cells**. *Cancer Res.* ...

Cited by: 13

Author: Andrew M. K. Law, Fatima Valdes-Mora, Fa...

Publish Year: 2020

ALL

IMAGES

VIDEOS

MAPS

NEWS

SHOPPING

127,000 Results

Any time ▾

Including results for [myeloid-derived suppressor cells in gastrointestinal cancers](#) a **systematic** review.

Do you want results only for [Myeloid-derived suppressor cells in gastrointestinal cancers: A systemic review](#)?

Myeloid-derived suppressor cells in gastrointestinal ...

<https://pubmed.ncbi.nlm.nih.gov/26729006>

Considering key roles of myeloid-derived suppressor cells (MDSCs) in the immunosuppression network, levels of MDSCs in patients with cancer are assumed to be of prognostic and predictive value. In this systematic review, we aimed to evaluate the clinical relevancy of MDSCs and their relationship with clinical features and prognosis of **GI malignancies** in patients with GI cancers.

Cited by: 7

Author: Armin Hirbod-Mobarakeh, Armin Hirbod-M...

Publish Year: 2016

Myeloid-derived Suppressor Cells in Cancer: Therapeutic ...

<https://pubmed.ncbi.nlm.nih.gov/24787291>

Myeloid Derived Suppressor Cells (MDSCs) and T-cell suppression. MDSCs are **immature myeloid cells** originating **in the bone marrow** that are recruited to the tumor microenvironment through production of various tumor derived factors (TDFs). These chemokines and cytokines stimulate the production of myeloid precursors in the marrow, and facilitate their recruitment and accumulation within the tumor ...

Cited by: 130

Author: C. Marcela Diaz-Montero, Jim Finke, Albert...

Publish Year: 2014

Prognostic role of myeloid-derived suppressor cells in ...

<https://www.ncbi.nlm.nih.gov/pubmed/30518340>

Dec 05, 2018 · BACKGROUND: Myeloid-derived suppressor cells (MDSCs) is a **heterogeneous population of immature myeloid cells**, inhibiting both the innate and adaptive immunity. Recent studies validated that MDSCs caused immune suppression and promoted cancer ...

Cited by: 22 **Author:** Jiahui Ai, Shihua Yao, Wenbin Huang, ...

Myeloid-derived Suppressor Cell

MDSC (myeloid-derived suppressor cells) are a heterogenous group of immune cells from the myeloid lineage (a family of cells that originate from bone marrow stem cells). MDSCs strongly expand in pathological situations such as chronic infections and cancer, as a result of an altered haematopoiesis. MDSCs are discriminated from other myeloid cell types in which they possess strong immunosuppressive activities rather than immunostimulatory properties. Similar to other myeloid cells, MDSCs interact with other immune cell types including T cells, dendritic cells, macrophages and natural killer cells to regulate their functions. Although their mechanisms of action are not clear yet, clinical and experimental evidence has shown that cancer tissues with high infiltration of MDSCs are associated with poor patient prognosis and resistance to therapies. MDSCs can also be detected in the blood. In breast cancer patients, MDSC levels in the blood are about 10-fold higher than normal.

Wikipedia

Data from: Wikipedia

[Suggest an edit](#)