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## Unusual immunohistochemical “null” pattern of four mismatch repair proteins of gastric cancer: A case report

Yue M *et al.* Null pattern of MMRs proteins of gastric cancer

Meng Yue, Jun-Ying Liu, Yue-Ping Liu

### Abstract

#### BACKGROUND

Immunohistochemical (IHC) staining for mismatch repair (MMR) proteins is useful for gastric cancer treatment and prognosis. Different IHC staining patterns reflect the complex biological phenomena underlying MMR deficiency. We herein report a rare IHC staining pattern of four MMR-related proteins in gastric cancer.

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We herein report a rare IHC staining pattern of four MMR-related proteins in gastric cancer. Case presentation: An "null" IHC staining pattern of four MMR-related proteins in a 67-year-old man wit...

Author: Meng Yue, Junying Liu, Qingwei Liu, ... Publish Year: 2020

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## Immunohistochemical null-phenotype for mismatch repair ...

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The IHC test, however, can show varied **staining patterns**, posing challenges in the interpretation of the **staining results** in some cases. Here we report a case of an 80-year-old female with a colonic adenocarcinoma that exhibited an **unusual "null" IHC staining pattern** with complete loss of all **four MMR proteins** (MLH1, MSH2, MSH6, and PMS2).

Cited by: 10

Author: Tao Wang, Zsafia K. Stadler, Liying Zhang, ...

Publish Year: 2018

## Immunohistochemical null-phenotype for mismatch repair ...

<https://link.springer.com/article/10.1007/s10689-017-0031-9> ▾

Aug 17, 2017 · In this **report**, we illustrate an **unusual MMR IHC staining pattern** whereby all **four MMR proteins** are lost in a colonic carcinoma. Our **case** is the first instance of a **null IHC phenotype** that is the result of co-existing sporadic MLH1 promoter methylation and MSH2 somatic mutation, the latter representing a newly emerged mechanism for MSI-H in CRC ...

Cited by: 10

Author: Tao Wang, Zsafia K. Stadler, Liying Zhang, ...

Publish Year: 2018 Estimated Reading Time: 5 mins

## DNA mismatch repair proteins: scientific update and ...

<https://jcp.bmj.com/content/74/4/264> ▾

Apr 01, 2021 · **Mismatch repair proteins** and their function. **Mismatch repair (MMR) proteins** are essential for repairing DNA errors (eg, point mutations) that are generated during DNA replication. There are at least seven MMR **proteins** in humans, of which **four** have the most clinical relevance in human **cancer** biology—MLH-1, MSH-2, MSH-6 and PMS-2. 1 These **four proteins** are arranged as ...

Author: Adrian C Bateman Publish Year: 2021

## Alteration of DNA mismatch repair capacity underlying the ...

<https://www.nature.com/articles/s41598-021-83177-1>

Feb 11, 2021 · Lung **cancer**, which occurred in approximately 2.1 million patients and caused an estimated 1.8 million deaths worldwide in 2018, constitutes a substantial disease burden 1,2. Lung **cancer** is ...

Author: Shiro Fujita, Katsuhiko Masago Publish Year: 2021

## Additional loss of MSH2 and MSH6 expression in sporadic ...

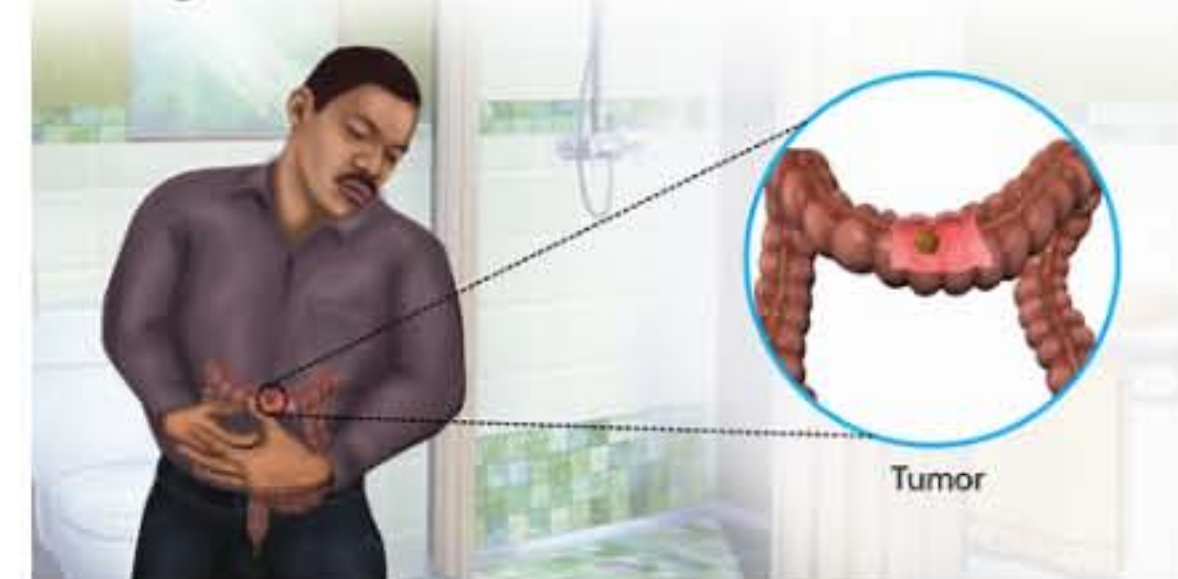
<https://jcp.bmj.com/content/72/6/443> ▾

Jun 01, 2019 · Although somatic mosaicism has been reported in a patient with LS, it is extremely rare and to our knowledge only one single **case report** has described this finding.<sup>8</sup> The null expression

## Colon Cancer

Medical Condition

A condition characterized by severe abdominal pain and changes in bowel movements



Cancer that begins in the last part of the digestive tract—colon (large intestine).

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

Requires lab test or imaging

Treatable by a medical professional

Can last several years or be lifelong

The exact cause is not known. Non-cancerous polyps in colon may become cancerous. Abdominal pain, bloody stool, bloating, fatigue and weight loss are the commonly noted symptoms. Treatment involves surgery and chemotherapy.

## Symptoms

Many people have no symptoms until the later stages of cancer The symptoms include:

- Diarrhea
- Constipation
- Blood in stool
- Fatigue
- Unexplained weight loss
- Abdominal pain
- Bloating