

# ROLE OF ASPIRIN AS PROPHYLAXIS AGAINST COLORECTAL CANCER

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## ABSTRACT

**Introduction:** Colorectal cancer (Bowel Cancer) is cancer of colon and rectum that are the parts of large intestine.<sup>[1]</sup> Symptoms are pain on defecation, blood and mucus in feces.<sup>[2]</sup> Risk factors of colon cancer are certain diet that is red meat, alcohol, and meat that is processed, obesity, smoking, and lack of physical activity.<sup>[3, 4]</sup> Others factors are old age, type three personalities and usage of spicy foods. People with inflammatory bowel disease (ulcerative colitis and Crohn's disease), familial adenomatous polyposis are at high threat of cancer of colon and rectum. This can be prevented by using aspirin usage in long term.<sup>[5,6,7]</sup> In high danger families, cancer of colon can be prevented by using aspirin and colonoscopies are recommended in these families.<sup>[8,9]</sup> Colorectal cancer can be diagnosed by sigmoidoscopy or colonoscopy.<sup>[10,11,12]</sup> Most of people (50 %) do not report any signs and symptoms of colon cancer.<sup>[13,14]</sup> Streptococcus gallolyticus is associated with colorectal cancer.<sup>[15, 16]</sup>

**Objective:** To find out the role of aspirin as prophylaxis against colorectal cancer.

**Methodology:** This descriptive retrospective study was conducted in the Ibae –Sienna Hospital Multan from January 2016 to August 2017. 100 patients of each group between 50-65 years of age were included in the study; all were male whose were taken aspirin for pain killer and for fever as routine since long term and 100 male patients of same age not used aspirin. Date analysis was carried out using SPSS version 19 Software.

**Results:** All were male patients 100 (100 %) 50-65 years of age. Most of the patients (98) 98 % who used aspirin in the past have no colorectal cancer as compared to patients (18) 18 % who not taken aspirin in the past have colorectal cancer.

**Conclusion:** Patients used aspirin since long have very least possibilities of colorectal cancer

**Keywords:** Colorectal Cancer, Aspirin, NSAIDS

## INTRODUCTION

**Bowel cancer** (Colorectal cancer) is cancer of colon and rectum that are the parts of large intestine.<sup>[1]</sup> Symptoms are pain on defecation, blood and mucus in feces.<sup>[2]</sup> Risk factors of colon cancer are certain diet that is red meat, alcohol, and meat that is processed, obesity, smoking, and lack of physical activity.<sup>[3, 4]</sup> Others factors are old age, type three personalities and usage of spicy foods.. People with inflammatory bowel disease (ulcerative colitis and Crohn's disease), familial adenomatous polyposis are at high threat of cancer of colon and rectum. This can be prevented by using aspirin usage in long term.<sup>[5,6,7]</sup> In high danger families, cancer of colon can be prevented by using aspirin and colonoscopies are recommended in these

families.<sup>[8,9]</sup> Colorectal cancer can be diagnosed by sigmoidoscopy or colonoscopy.<sup>[10, 11, 12]</sup> Most of people (50 %) do not report any signs and symptoms of colon cancer.<sup>[13, 14]</sup> Streptococcus gallolyticus is associated with colorectal cancer.<sup>[15, 16]</sup> Aspirin is a non-steroidal anti-inflammatory drug (NSAID). It is analgesic: Relieves pain without anesthesia or loss of consciousness, Antipyretic: Reduces a fever, Anti-inflammatory: Lowers inflammation when used in higher doses. Non-steroidal means they are not steroids.

## OBJECTIVE

To find out the role of aspirin as prophylaxis against colorectal cancer.

**METHODOLOGY**

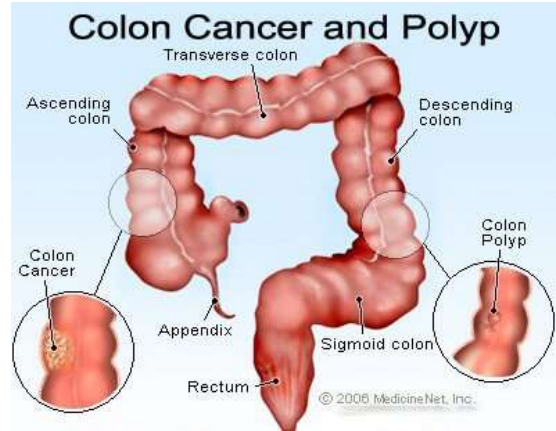
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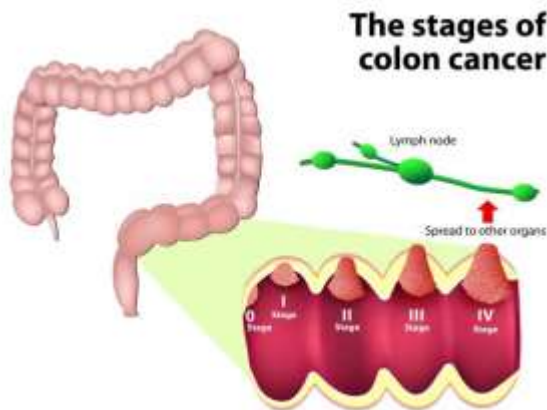
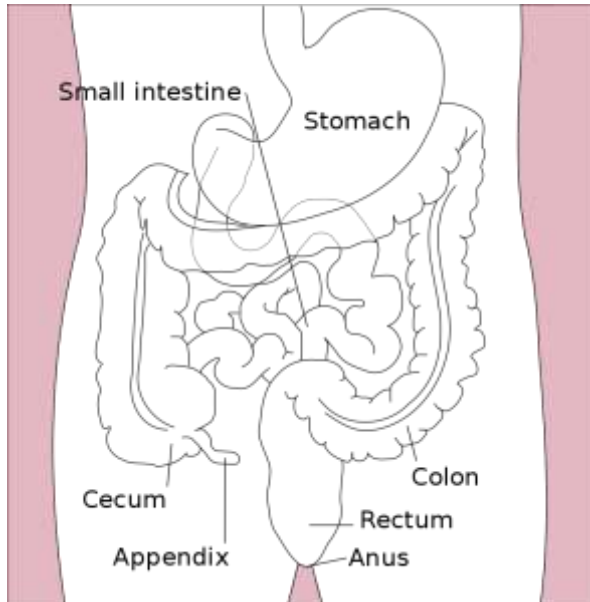
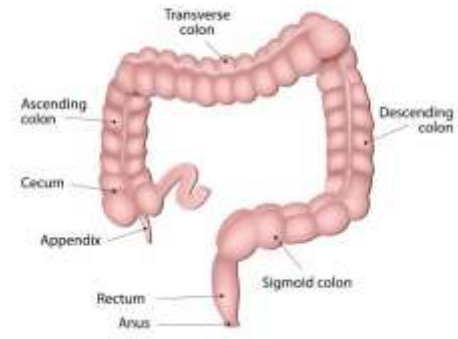
Date analysis was carried out using SPSS version 19 Software.

**RESULTS**

All were Male patients 100 (100 %) 50-65 years of age. Most of the patients (98) 98 % who used aspirin in the past have no colorectal cancer as compared to patients (18) 18 % who not taken aspirin in the past have colorectal cancer.



**ANATOMY OF THE LARGE INTESTINE**



**A. Sex Information**

A total of 100 patients from each group who used aspirin and other who not used aspirin in the past, among them male were 100 (100 %) and female were nil (Nil %) as in the Table 1

**Table 1:** Frequency distribution of patients of each group according to sex

Sex	Frequency	Percentage
Male	100	100 %
Female	—	—%
Total	100	100 %

**B. Age Information**

A total of 100 patients from each group who used aspirin and other who not used aspirin in the past with range of 50 65 years of age in the Table 2

**Table-2:** Frequency distribution of patients of each group according to age:

Age	Frequency	Percentage
50-65	100	100 %
Total	100	100 %

**C. Frequency distribution of patients used aspirin and not used aspirin in the past**

While taking history of aspirin used in the past, it was found that only 2 out of 100 (2 %) who used aspirin in

the past have colorectal cancer and 18 out of 100 (18%) have colorectal cancer those not used aspirin in the past have (Table 3).

**Table 3:**

Past History of usage of aspirin	No. of patients	Frequency of colorectal cancer	Percentage
Yes	100	2	2 %
No	100	18	18 %

Test of significance  
 $\chi^2 = 10.9$   
 $df = 1$   
 $P < 0.0001$  (significant)

**DISCUSSION**

People with inflammatory bowel disease (ulcerative colitis and Crohn's disease) are at high threat of cancer of colon and rectum. This can be prevented by using aspirin usage in long term. In high danger families, cancer of colon can be prevented by using aspirin and colonoscopies are recommended in these families.<sup>[17]</sup> Aspirin is also useful to prevent death in heart attack, ischemic heart diseases, arthritis and other diseases. Peoples of high risk groups can prevent colorectal cancer by using aspirin as prophylaxis.

Aspirin is thought to reduce the overall risk of both getting cancer and dying from cancer.<sup>[18]</sup> This effect is particularly beneficial for colorectal cancer (CRC) but must be taken for at least 10–20 years to see this benefit. It may also slightly reduce the risk of endometrial cancer, breast cancer, and prostate cancer<sup>[18,19]</sup> In our study, those patients who were used aspirin for some sickness had found least chances of colorectal cancer as compared to those who not used aspirin

**CONCLUSION**

Patients used aspirin since long have very least possibilities of colorectal cancer

**RECOMMENDATIONS**

In the light of above study, it is recommended that high risk groups (family history) of colorectal cancer should use aspirin as prophylaxis to avoid/minimize the risk of colorectal cancer in addition to nutrition measures and avoid the consumption of alcohol.

**REFERENCES**

1. "General Information About Colon Cancer". NCI. May 12, 2014. Archived from the original on July 4, 2014. Retrieved June 29, 2014.

2. Bosman, Frank T. (2014). "Chapter 5.5: Colorectal Cancer". In Stewart, Bernard W.; Wild, Christopher P (eds.). World Cancer Report. the International Agency for Research on Cancer, World Health Organization. pp. 392–402.
3. "Colorectal Cancer Prevention (PDQ®)". National Cancer Institute. February 27, 2014. Archived from the original on July 5, 2014. Retrieved June 29, 2014.
4. Theodoratou E, Timofeeva M, Li X, Meng X, Ioannidis JP (August 2017). "Nature, Nurture, and Cancer Risks: Genetic and Nutritional Contributions to Cancer". Annual Review of Nutrition (Review). **37**: 293–320.
5. Bibbins-Domingo K, Grossman DC, Curry SJ, Davidson KW, Epling JW, García FA, Gillman MW, Harper DM, Kemper AR, Krist AH, Kurth AE, Landefeld CS, Mangione CM, Owens DK, Phillips WR, Phipps MG, Pignone MP, Siu AL (June 2016). "Screening for Colorectal Cancer: US Preventive Services Task Force Recommendation Statement". JAMA. **315** (23): 2564–2575..
6. "Colon Cancer Treatment (PDQ®)". NCI. May 12, 2014. Archived from the original on July 5, 2014. Retrieved June 29, 2014.
7. "SEER Stat Fact Sheets: Colon and Rectum Cancer". NCI. Archived from the original on June 24, 2014. Retrieved June 18, 2014.
8. GBD 2015 Disease and Injury Incidence and Prevalence, Collaborators. (October 8, 2016)
9. Thorat MA, Cuzick J (December 2013). "Role of aspirin in cancer prevention". Current Oncology Reports. **15** (6): 533–40
10. "Routine aspirin or nonsteroidal anti-inflammatory drugs for the primary prevention of colorectal cancer: recommendation statement". American Family Physician. **76**(1): 109–13. July 2007. PMID 17668849. Archived from the original on July 14, 2014.

11. Alpers DH, Kalloo AN, Kaplowitz N, Owyang C, Powell DW (2008). Yamada T (ed.). Principles of clinical gastroenterology. Chichester, West Sussex: Wiley-Blackwell. p. 381.
12. Juul JS, Hornung N, Andersen B, Laurberg S, Olesen F, Vedsted P (August 2018). "The value of using the faecal immunochemical test in general practice on patients presenting with non-alarm symptoms of colorectal cancer". *British Journal of Cancer*. **119** (4): 471–479
13. Astin M, Griffin, T, Neal, RD, Rose, P, Hamilton, W (May 2011). "The diagnostic value of symptoms for colorectal cancer in primary care: a systematic review"..
14. Adelstein BA, Macaskill P, Chan SF, Katelaris PH, Irwig L (May 2011). "Most bowel cancer symptoms do not indicate colorectal cancer and polyps: a systematic review".
15. "Aspirin". Martindale: The Complete Drug Reference. Pharmaceutical Press. Retrieved 3 April 2014.
16. "Zorprin, Bayer Buffered Aspirin (aspirin) dosing, indications, interactions, adverse effects, and more". Medscape Reference
17. Haynes, William M., ed. (2011). *CRC Handbook of Chemistry and Physics*(92nd ed.). Boca Raton, FL: CRC Press. p. 3.8
18. "Aspirin". Drugs.com. American Society of Health-System Pharmacists. 6 June 2016. Archived from the original on 25 April 2017.
19. Patrignani P, Patrono C (August 2016). "Aspirin and Cancer". *Journal of the American College of Cardiology*. **68** (9): 967–76.