

A META- ANALYSIS OF COLONIC INVOLVEMENT IN ULCERATIVE COLITIS AMONG ASIAN COUNTRIES

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INTRODUCTION

- Ulcerative Colitis (UC) is a chronic inflammatory disease usually found in the large intestine and rectum.
- Over the years the incidence and prevalence of UC has been lower in Asia when compared to the Western World.
- New studies in Asia are showing an increase in the incidence of UC over the past 2 decades.
- Differences in incidence rates across the geographic regions and races can provide key information regarding the etiology of these diseases.
- At this time data from westernized countries had shown an increase in incidence of IBD as a whole among caucasians compared to non-caucasians.
- In contrast, research from california suggests no difference in incidence among blacks and whites.
- These epidemiologic studies are rare in Asia for a multitude of reasons.
- The aim of this study is to assess the incidence and manifestations of Ulcerative Colitis across multiple countries in Asia.

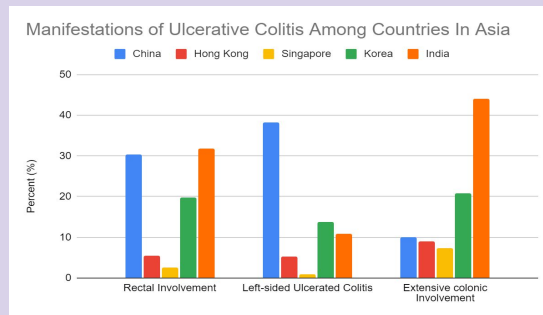
METHODS

- An extensive meta-analysis on Ulcerative colitis patients was performed comparing articles from different parts of Asia, and R software was used to compile the data.
- The patient's data regarding colonic involvement was reviewed and the data was then matched using propensity score matching in the R software

RESULTS

- Incidence of rectal involvement was high among the Chinese and Indian population (30.30% China vs. 5.56% Hong Kong vs. 2.53% Singapore vs. 19.80% Korea vs. 31.82% India, $p:0.023$ 95%CI).
- Left-sided ulcerated colitis was predominant among the Chinese population (38.28% China vs. 5.26% Hong Kong vs. 0.93% Singapore vs. 13.80% Korea vs. 10.82% India, $p:0.033$ 95%CI).
- Extensive colonic manifestation involving most of the colon was seen in the Indian population compared to other nationalities (10.01% China vs. 9.09% Hong Kong vs. 7.27 % Singapore vs. 20.80% Korea vs. 44.10 % India, $p < 0.01$ 95%CI).

FIGURE 1



Manifestations of Ulcerative Colitis Among Different Countries in Asia

DISCUSSION

- There are a multitude of factors that may be contributing to the rise of both the incidence and prevalence of UC in Asian Countries. These factors include westernization of lifestyle, changes in diet, increased use of modern medicine from the traditional homeopathic modalities, and/or industrialization of society.
- Our data shows that there is a discrepancy in not only the incidence and prevalence of UC among different countries but also the characteristics of the disease.
- One study by Ng states that the prevalence of UC in Japan rose from 7.85 cases per 100,000 individuals to 63.6 cases per 100,000 individuals from 1984 and 2005. He also found that in Korea there was an increase in prevalence from 7.6 cases per 100,000 individuals to 30.9 cases per 100,000 individuals between 1997 and 2005.
- A study conducted in Korea, which included 94 patients, found relatively equal rates of proctitis, left sided colitis and extensive colitis at the time of diagnosis. In our study we found that the Korean population had significantly less left sided UC compared to extensive colitis and rectal involvement at the time of presentation.
- A study conducted in 2013 which compared Singapore, Malaysia, and India found that Indians not only had a higher prevalence of UC but also had more extensive disease. This coincides with our findings.
- The geographic distribution of IBD provides clues for researchers to investigate possible environmental determinants of IBD.

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