History of IBD in India

History before History

1769 : Morgagni : gave the first description of Crohn's Disease

1865 : First description of Ulcerative colitis recorded in Annals of Union Army Medical Corps

Ayurveda : Grahini Rog

Dalziel’s Disease

Classic Articles in Colonic and Rectal Surgery

Marvin L. Corman, M.D., *Editor*

Thomas Kennedy Dalziel
1861–1924

Dalziel 1913, The British Medical Journal Vol. 2, No. 2756
"In vol. xx of the Journal of Comparative Pathology and Therapeutics, McFayden draws attention to Johne's disease, a chronic bacterial enteritis of cattle which the histological characters and naked eye appearances are as similar as may be to those found in man."

extraordinary teaching skills, and marvelous manipulative dexterity. He was considered the best technical surgeon in the West of Scotland. His contributions to the medical literature were considerable, dealing mainly with abdominal surgery. His writings, including this "classic" paper, demonstrate a concise grasp of a new disease entity, *chronic interstitial enteritis,* later to become known as Crohn's disease. It is generally believed that Dalziel was the first to "draw attention to this condition." T. Kennedy Dalziel died on February 10, 1924, in his 64th year.

Dalziel TK. Chronic interstitial enteritis. Dis Colon Rectum 1989;32:1076–1078.

Chronic Interstitial Enteritis

By T. K. Dalziel, M.B., C.M., F.R.F.P.S.G.
Surgeon, Western Infirmary, Glasgow

I have pleasure in drawing your attention to this condition, which, I think, has not yet been fully described.

Twelve years ago I saw a professional colleague, suffering from obstruction of the bowels of a fortnight's duration, previous to which he had had for several weeks numerous attacks of colic, slight attacks of diarrhoea with no tenderness over the abdomen, and very slight rise in temperature, with no appreciable alteration in the pulse-rate. When seen by me the abdomen was not distended nor were the muscles rigid, but to the hand gave a sense of putty-like resistance. As vomiting was persistent, I concluded that there might be an obstruction high up, and so opened the abdomen, to find the whole of the intestines, large and small alike, contracted, rigidly

T. Kennedy Dalziel

[Photograph courtesy of the Scottish Medical Journal]

Reprinted with permission from Dalziel TK. Chronic interstitial enteritis. Br Med J 1913;2:1068–1070.

Volume 99
Number 16 — *REGIONAL ILEITIS—CROHN ET AL.* — 1323

important in making the intestinal incision for any ureteral transplantation. The intestine should be held by four traction loops, which, when possible, should include any visible vessel in the intestinal wall that may cross the proposed line of incision. With a very sharp lance pointed knife, the peritoneum and part of the muscular coat are cut. The knife is now turned flatwise and with the point of the knife the remaining muscle fibers are teased through with gentle strokes, which cause the muscle ends to separate without damage to the submucosal vessels or membrane. With the handle of the knife, the muscle coat is pushed back, exposing the outer surface of the intestinal mucous membrane. This part of the operation must be done very delicately.

Technic 3, because of its simplicity, seems destined to assume an important rôle. Based on experimental surgery on animals and the very limited experience reported herein, it seems safe to say, even now, that it is the method of choice for treating exstrophy of the bladder in young children and in case of accidental injury to a ureter in the course of an abdominal or a pelvic operation. Conceivably, after it has been more fully tried and developed, it may supplant other methods in all cases whenever two good kidneys are present. It must constantly be borne in mind that *simultaneous bilateral transplantation cannot be done by this technic.* Of three dogs in which bilateral transplantation was done by this technic, all died within forty-eight hours. It is not feasible in dilated ureters with damaged kidneys, in single ureters in which the other kidney has been removed for tuberculosis, or in cases of advanced cancer in which time is important.

Technic 2 has given remarkable results in patients with two good kidneys, such as are usually found in vesicovaginal and other types of fistulas. I have had no deaths in this type of case and under the circumstances would hesitate to use any other method. Nevertheless, it is a serious operation in the hands of those who are not well grounded in the principles and fine points of abdominal and intestinal surgery.

Technic 3 will be a much safer operation in the hands of one who is doing his first transplantation operation. This technic is attractive from another standpoint. It is so simple that it lends itself perfectly to experimental surgery, by which any surgeon preparing to do ureteral transplantation may readily perfect his technic before he attempts to do the operation on the human being. Most of my experimental work was done in my regular operating room. After I had completed the morning's work, an anesthetized dog was brought in and the operation performed, after which the dog was easily cared for outside without any special surroundings. I would not convey the impression that this operation is without danger, for the fate of the kidney depends on the accuracy of a very delicate operation. If the transfixion suture does not definitely penetrate both the lumen of the ureter and the lumen of the intestine, the kidney is lost. Sometimes it is difficult to isolate definitely a ureter from its surrounding connective tissue. The degree of tightness with which the transfixion suture is tied is important. It must be sufficiently tight to strangulate the tissues within its bite but not sufficient to cut through the intestinal mucous membrane at the time it is placed. I would especially urge the use of experimental surgery as preliminary training for the performance of this operation.

611 Lovejoy Street.

REGIONAL ILEITIS

A PATHOLOGIC AND CLINICAL ENTITY

BURRILL B. CROHN, M.D.
LEON GINZBURG, M.D.
AND
GORDON D. OPPENHEIMER, M.D.
NEW YORK

We propose to describe, in its pathologic and clinical details, a disease of the terminal ileum, affecting mainly young adults, characterized by a subacute or chronic necrotizing and cicatrizing inflammation. The ulceration of the mucosa is accompanied by a disproportionate connective tissue reaction of the remaining walls of the involved intestine, a process which frequently leads to stenosis of the lumen of the intestine, associated with the formation of multiple fistulas.

The disease is clinically featured by symptoms that resemble those of ulcerative colitis, namely, fever, diarrhea and emaciation, leading eventually to an obstruction of the small intestine; the constant occurrence of a mass in the right iliac fossa usually requires surgical intervention (resection). The terminal ileum is alone involved. The process begins abruptly at and involves the ileocecal valve in its maximal intensity, tapering off gradually as it ascends the ileum orally for from 8 to 12 inches (20 to 30 cm.). The familiar fistulas lead usually to segments of the colon, forming small tracts communicating with the lumen of the large intestine; occasionally the abdominal wall, anteriorly, is the site of one or more of these fistulous tracts.

The etiology of the process is unknown; it belongs in none of the categories of recognized granulomatous or accepted inflammatory groups. The course is relatively benign, all the patients who survive operation being alive and well.

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RELATIONSHIP
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The so-called benign granulomas all present a tumor-like inflammatory mass which usually simulates carcinoma

From the Mount Sinai Hospital.
Read before the Section on Gastro-Enterology and Proctology at the Eighty-Third Annual Session of the American Medical Association, New Orleans, May 13, 1932.

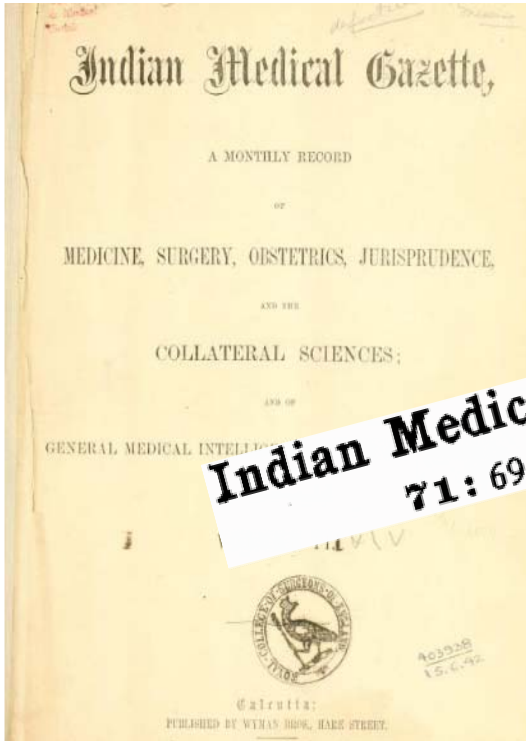
ARTICLE | October 15, 1932
REGIONAL ILEITIS
A PATHOLOGIC AND CLINICAL ENTITY
BURRILL B. CROHN, M.D.; LEON GINZBURG, M.D.; GORDON D. OPPENHEIMER, M.D.
JAMA. 1932;99(16):1323-1329.
doi:10.1001/jama.1932.02740680019005.

The Reason why it is called as Crohn's Disease - 1932

As all the authors of a paper are listed in alphabetical order, Dr Burrell B Crohn's name was the first on the list

Although he saw only 2 of the 14 cases described

Physicians in England, for want of a less ominous name than 'terminal ilitis', nicknamed the condition 'Crohn's Disease'



...s were present in the scraping
present in twenty-five cases and stricture in six. The thera-
peutic test with emetine was positive in two cases. There were
twelve cases of nonspecific colitis. The pathologic report
showed inflammation of the submucosa with some fibrosis.
Colonic lesions are readily amenable to preoperative emeti

Indian Medical Gazette, Calcutta
71: 693-756 (Dec.) 1936

Chopra,R.N.,and Ray,P.N.(1939). Indian Med.Gaz.,74,65.

120 cases of Non Specific Ulcerative colitis

Initial Reports : North and East India

Chaudhuri,R.N.,Lahiri,D.C.,Neogy,K.N.,Basu,S.P.,Chatterjee, S.N.,Sinha,G.and Rai Chaudhuri,M.N**.(1954)**.Studies on ulcerative colitis. Bull.Calcutta Sch.trop.Med.,1,9-11.

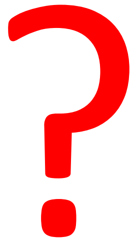
Pasricha,K.K.,Chuttani,P.N.,and Vidyasagar**(1958)**. J.Ass.Phycns, India, 1, 19.

Gadekar, N. G., **(1962**). Ulcerative colitis: incidence and diagnosis. Indian J. Radiol., 16, 151-166.

Tandon, B. N., Upadhyaya, A. K., Tandon, H. D., and Gadekar, N. G. (**1964)**. Ulcerative colitis in northern Indian subjects. (A preliminary report) JAPI

Jalan et al, Pimparkar et al , Jha et al – case series

Ulcerative colitis



Rare disease

Not rare but maybe uncommon disease

Maybe much more common than imagined

of the colon in the tropics.

Material and Methods

(1) A questionary was sent to the leading hospitals in different parts of the country for information regarding admission of cases of nonspecific ulcerative colitis during the period 1956–60. The inquiry covered the total number of admissions each year, the number of yearly medical admissions, and the number of ulcerative colitis cases admitted annually. The information received was analysed.

10,000 admissions. The overall admission rate came to 28.3 cases per 10,000 medical admissions and 9.4 cases per 10,000 total hospital admissions.

TABLE I.—*Admission rate of Ulcerative Colitis in Various Hospitals*

Name of City	Average No. of Cases per Year	Average Admissions per Year		Rate per 10,000 Admissions	
		Medical	Total	Medical Wards	Whole Hospital
(1) Calcutta ..	11·5	1,295	—	89·1	—
(2) Bombay ..	73	9,949	27,933	73·35	26·13
(3) New Delhi ..	48	17,079	57,810	41·5	10·44
(4) Amritsar ..	17	3,013	23,034	56·42	7·38
(5) Vellore ..	10·5	3,066	13,565	34·26	7·74
(6) Madras ..	16·5	18,744	37,118	8·8	4·44

This is not very different from the reported admission rate of 10 cases per 10,000 hospital admissions in the United Kingdom.

SH
OURNAL

s in the Tropics

S. K. SAMA,‡ M.D.; P. C. DHANDA,§ F.R.C.P.
A.,|| M.D.

BMJ 1967

Reminiscences

Diseases change fashion, and the most talked about diseases those days were amebiasis, tropical sprue, non-cirrhotic portal hypertension, peptic ulcer and the newly emerging (in India) ulcerative colitis.

Gastroenterology in India – a retrospect
V Balakrishnan , IJG 2007

First batch DM Gastro at PGI , Chandigarh

First Seminar on Ulcerative Colitis

- Asian Congress of Gastroenterology - 1964
- Conducted in Chandigarh
- Dr PN Chuttani was the Chairman
- National Seminar on Ulcerative Colitis
- 136 Cases were presented

Rohtak Study - 1984

- 21,971 subjects
- Prevalence rate of Ulcerative colitis in community : 42.8/100,000

Khosla SN, J Assoc Physicians India. 1986 Jun;34(6):405-7

Ludhiana study 1999-2000

- 51,910 population screened
- 23 cases of UC
- Prevalence rate : 44.3/100,000
- Same population visited a year later
- Incidence rate : 6.02/100,000

(Sood et al ,Gut 2003)

- No population based studies from South
- UC > CD
- UC higher in Hindus vs Muslims - smoking
- 50% had extra intestinal symptoms

ISG-IBD Task force 2010

What do we infer from these studies ?

	Incidence	Prevalence/100,000
USA and Europe	3-15	50-80
India	6	44
Japan	1-2	10-18

India is definitely a moderate incidence area for UC

Indian Migrant population

- The incidence rate of UC among South Asians about twice as high as that in Europeans
- The incidence rate of UC among South Indians in England is one of the highest in the world

Probert CS, Jayanthi V, Gut. 1993 Nov;34(11):1547-51

Evolution of IBD in the West

- Initially UC>>CD
- Increase in CD in 1990s
- By a gap of almost 40 years

  CD=UC

Loftus, Gastroenterology, 2004

- India - nonexistent till 1986 – case series from tertiary care centres of specialised GE clinics

Increase in CD in India: Hygiene-hypothesis

- Chronic infections acquired in childhood induce immune tolerance to various extrinsic antigens
- Children and adults from developing countries are often infested with helminths
- Improving sanitation-Less helminthic infestation-Increase in incidence of immune mediated disorders

Back, N Engl J Med 2002

Incomplete explanation

- It is more, but detected to be less
  - Confusion with intestinal tuberculosis
  - Confusion with UC
- More apparent because of
  - Increase in awareness of its occurrence
  - Increase in willingness of accepting a diagnosis
  - Evidence based practice

Makharia G, JGH, 2006

Increase in CD in India: Real?

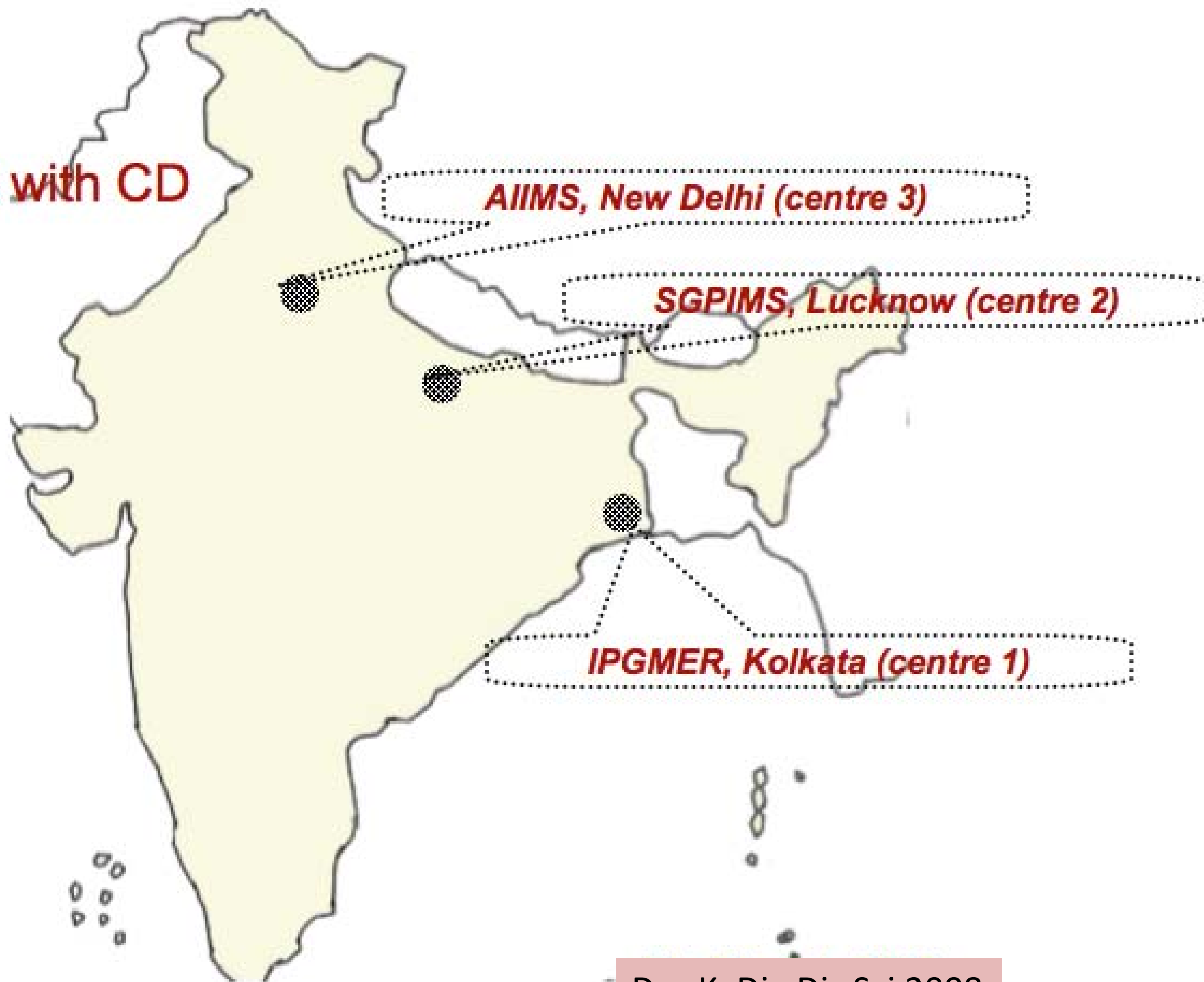
IBD: A disease of civilization

- The incidence of IBD in North America and Europe increased dramatically during the 20th century
- Common in highly industrialized countries
- Furthermore, IBD emerges as countries develop

Ahuja V, IJG 2013

Increase in reporting of CD in India

Author	Center	No.	Year
Pai, 2000	Manipal	25 pts	IJG, 2000
Zacharias P	Kochi	38 pts	IJG (abstr), 2001
Philip M	Kochi	229 pts	IJG (abstr), 2001
Kumar R	Delhi	10 pts	IJG (abstr), 2001
Tandon, R	Delhi	25 pts	IJG (abstr), 2001
Philip M	Kochi	410pts	IJG (abstr), 2004
Amte	CMC Vellore	70 pts	IJG (abstr), 2005



Das K, Dig Dis Sci 2008

Intestinal Tuberculosis vs Crohn's Disease

- Both diseases can masquerade as each other
- Diagnostic dilemma despite best investigational back up
- No gold standard test available to differentiate both
- 30% of CD patients end up having a ATT trial before being diagnosed as Crohn's

	CD	TB
Fever	25%	**68%**
Altered Bowel	**67%**	34%
Pulmonary	8.2%	**34%**
Abd distension	26%	**46%**
Rec Int Obst	**59%**	34%
Peritoneal nodules	22%	**78%**
Ascites	27%	**68%**
Strictures	**64%**	9.7%
Int fistula	**20%**	2.4%
Deep linear ulcers	**59%**	19%
Cobblestoning	**64%**	17%

CT Findings

Crohns	TB
Mural thickening with stratification	Mural thickening without stratification
Strictures - eccentric	Concentric
Fibro fatty proliferation of mesentery	Rare
Hyper vascular mesentery	Mesenteric infiltration
Mild lymphadenopathy + Abscesses	Hypodense LN

Epidemiological differences from developed countries

Males predominance in Crohns

Lower incidence of extra intestinal manifestations

Lower risk of colorectal cancer

NOD2/CARD 15 gene not associated with Crohns in India

Conclusion

Registries for IBD

Limitations of access to health care facilities

Limited availability of diagnostic tests

Infections diseases confound Dx of IBD

Diversity of medical practices