Alfred’s Morgagni Klemperer Crohn Disease

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Ulcerating mucosal inflammation
Transmural inflammation
Mural thickening
Serositis
Adhesions
Sinus tracts
Fistula formation

ACCME/Disclosure

Dr. Geller has nothing to disclose

The first case of Crohn disease ...

?? Aretæus (Ἀρεταῖος) of Cappodocia (Καππαδοκία) – 1st C.E.
Alfred the Great (849-899)


De Abditis Morborum Causis, 1507
(The Hidden Causes of Disease)

Antonio Benivieni (1443-1502)

Attacks of diarrhea for decades, fever and rectal abscesses
1642 – bloody diarrhea, fever, abdominal pain, perianal abscess or fistula
1643 – autopsy showed ulcerated small and large bowel, perianal abscess or fistula, cavitary lesion of lung

Antonio Benivieni (1443-1502)

City of London

Bristol Cathedral

Louis XIII of France (1601-1643)

Asser: Life of King Alfred

Alfred had married Eadgifu with Mercian bride, he participated in a grand fest that lasted for a day and a night. He was struck without warning in the presence of the entire gathering by a sudden severe pain that was quite unknown to all physicians. Certainly it was not known to any of those who were present, nor those who up to the present day who have incurred pain such as he could experience and - worse of all, and could continue so many years without remaining, from his twentieth year up to his forty and beyond. Many alleged that it happened through the spells and witchcraft of the people around him, others, through the ill-will of the...
Giovanni Battista Morgagni (1682-1771)

1682 – born, Forlì Italy, comfortable circumstances
1701 – University of Bologna M.D. (prosector for Valsava, who was a student of Malpighi)
1706 – Adversaria anatomica (total of 6 editions)
1712 – University of Padua – chair of theoretical medicine (successor to Vesalius, Fallopio, Fabrizio, etc)
1713 – married – 3 sons and 12 daughters - poet
1761 – De Sedibus et causis morborum per anatomiam indigatis
1771 – died, Padua

Some of Morgagni’s contributions

- angina pectoris
- coronary atherosclerosis
- vegetative endocarditis
- aneurysm
- aortic coarctation
- mitral stenosis and insufficiency
- tetralogy of Fallot
- pulmonary stenosis
- lobar pneumonia
- cirrhosis
- pulmonary tuberculosis
- Stokes-Adams
cuneiform cartilages of Morgagni
- hydatid of Morgagni
- Morgagni’s caruncle
- Morgagni cataract
- Morgagni concha
- Morgagni columns
- Morgagni foramen
- Morgagni lacunas
- Morgagni tu ercles
- Morgagni sinus
- Morgagni ventricle
- Morgagni Turner-Albright syndrome
- Morgagni-Stewart-Morel syndrome
- femoral artery embolus
- syphilitic gumma
- aortic syphils
- central nervous system syphils
- gastric carcinoma
- colonic carcinoma
- intestinal polyps
- ulcerative colitis
- Crohn disease
- appendicitis
- Richter hernia
- pancreatitis
- benign prostatic hypertrophy
- Marfan’s syndrome
- post-mortem thrombi
- stroke etc etc etc
20 year old man with mesenteric lymphadenopathy ... erosions, ulcerations and perforations of the extremity of the ileum and the nearest point of the colon to the extent of two hands breadth ..."

Some post-Morgagni descriptions ...

1793 – Matthew Baillie – *Morbid Anatomy* - “intestine inflammation ... thickened mucosa ... ulcerated ... perforation or fistula ... thick-walled, ulcerated mucosa, narrowed lumen and dilated bowel cephalad ...”

1813 – Combe – “The lower part of the ileum as far as the colon was contracted, for the space of three feet, to the size of a turkey’s quill. The colon had three constrictions ...”

1835 - Cruveilhier – *Anatomie Pathologique* – strictured skip lesions from pylorus to rectum

1859 – Wilks – *Lectures on Pathologic Anatomy* – local acute ileitis with inflammation of the whole wall, “the whole tissue charged with pyoid corpuscles.” (granulomas)

and more ...

1830 - Colles  
1889 - Fenwick  
1890 - Redmond  
1901 - Lartigan  
1902 - Robson  
1918 – Jones, Eisenberg  
1925 - Coffen  
1925 - Horsley  
1926 - Cabot, Cabot  
1930 - Barga, Weber  
1931 - Mock  
1932 - Golub

And, in these same years, Monsarrat, Mohnihan, Edwards, Proust, Lejars, Wilmanns, Braun, Schmidt, Lawen, Tietze, Bachlechner, Fröhlich, Verebly, Razzaboni, Goto, Nuboer, Lichtarowicz, Bergmann, Wilks, Datziel, AND MORE – from England, France, Germany, Hungary, Italy, Japan, Netherlands, Poland, Russia, Scotland, United States

But few if any clearly identified the unique “pathological and clinical entity” as did the Mount Sinai authors.
E. Hurry Fenwick, 1889

27 year old woman with a history of diarrhea and weight loss - “... many of the coils of intestine were adherent and communication existed between the cecum and a portion of the small intestine adherent to it. Whilst the sigmoid flexure was adherent to the rectum and a communication also existed between them, the lower end of the ileum was much dilated and hypertrophied and the ileocecal valve was contracted to the size of a swan’s quill.”

Chronic Interstitial Enteritis

Thomas Kennedy Dalziel (1861-1924)

E. Eli Moschkowitz, M.D.

1882-1964
Internist and pathologist
1911 – first association of eosinophils and allergic reactions (NY Med J, 93:15-19)
1925 - thrombotic thrombocytopenia purpura TTP; Moschkowitz disease (Arch Int Med, 36:89-93)

The Mount Sinai Hospital papers

Lilenthal H. Hyperplastic colitis: extirpation of the entire colon, the upper portion of the sigmoid flexure and four inches of the ileum. Mt Sinai Hosp Rep 1901-1902:2:409-413.
Crohn BB, Ginzburg L, Oppenheimer GD. Regional ileitis: a pathologic and clinical entity. JAMA 1932;1323-1328.
Why not Berg disease?

1899 – joins Surgery department after studying with Billroth

1914 – Department of Surgery organized into four divisions:
Neurosurgery (Charles Ellsberg)
Thoracic (Howard Lilienthal)
Genitourinary (Edwin Beer)
Gastrointestinal (A.A. Berg)

1922 – Berg performs first gastrectomy in United States for peptic ulcer disease

(Berg only publishes papers with his name alone)

What about Ginzburg and Oppenheimer?

And how does Paul Klemperer fit into our story?

... in 1926 ... I was Associate Pathologist at the hospital ... running the department of morbid anatomy, without salary, earning my living by the practice of medicine in ... moments ... I could escape from the laboratory.

... Dr. Fred Mandelbaum took ill with a fatal illness ... I knew that I couldn’t run both departments and perhaps also bacteriology and immunology and everything else ... time had come when the laboratory should be put on a full-time basis.

They agreed and we secured a director of pathology, Dr. Paul Klemperer ...

George Baehr, M.D.
Sadao Otani, M.D.

1892 born, Kuwana-mie, Japan
1918 M.D., Chiba Medical College
   Assistant Pathologist
1920 Obstetrics-gynecology, Kyoto
1923 Anatomic pathology, Freiburg (Aschoff)
1925 Postgraduate Medical School, New York (now NYU)
1927 The Mount Sinai Hospital
1969 dies, emphysema, gastric ulcers (steroids)
Paul Klemperer - 1

1887 Born, Vienna
1906 Enters University of Vienna, faculty of law
1906 Attends lectures by Sigmund Freud, joins psychoanalytic society, transfers to medical school
1911 Joins Alfred Adler, breaking with Freud
1912 M.D., University of Vienna
1912 Studies Pathology with Karl Sternberg (student of Virchow), University of Brunn
1915 Drafted into Austrian army, World War I
1918 Pioneering studies on pathology of influenza

... in 1906, when Freud was but a voice crying in the wilderness, Klemperer became one of his first disciples ...

Eli Moschkowitz, M.D.
It is fascinating that both Klemperers saw no ideological incompatibility between pathology and psychiatry.

Stanley M. Aronson, M.D.

• Systemic lupus erythematosus
• Concept of ‘collagen diseases’
• Lymphomas
• Spleen
• Myoblastoma
• Benign pleural neoplasms
• Mesothelioma
• Lipoid nephrosis
• Shock
• Malignant hypertension (with Otani)
• Immunopathology
• ?? Crohn disease
• others ...

Paul Klemperer - 2

1919    Rejoins Sternberg
1921    Arrives in New York, refused Mount Sinai position
1922    Assistant Professor, Loyola Medical School, Chicago
1923    Assistant → Associate Professor, New York Postgraduate Medical School (now NYU)
1927    Pathologist-in-chief, The Mount Sinai Hospital
1942    “Pathology of disseminated lupus erythematosus”
1955    Retires
1964    Dies, ruptured aneurysm

[1931 – Knoll and Ruska invent electron microscope]
Dr. Klemperer would never say that pathology residents were in a training program; he would say that you don’t train pathologists, you teach them and they learn.

Lotte Strauss, M.D.

Was it Paul Klemperer who really identified what we now call Crohn disease?

A.A. Berg, Leon Ginzburg, his associate, and Gordon Oppenheimer, then a resident in surgical pathology, studied five of Berg’s patients.

Burrill B. Crohn had under his care another two or three patients.

The two groups united at the suggestion of Paul Klemperer who provided them with additional cases (“a new disease”) to make up the 14 patients in the 1932 article on “terminal ileitis.”
The alternate versions

• AA Berg recognizes the disease and instructs Ginzburg and Oppenheimer to study 14 cases of ‘atypical ulcerative colitis’
• Ginzburg collects data on 12 cases
• Crohn collects data on 2 or 3 cases, appropriates Ginzburg’s data and presents at AMA meeting
• Ginzburg and Oppenheimer present data at American Gastroenterologic Association 2 weeks later
• Crohn, Ginzburg, Oppenheimer publish paper

Would Crohn, Ginzburg, Oppenheimer have allowed/encouraged Klemperer to join the paper?
Yes (but the eponym would still be ‘Crohn’ since the journal only used alphabetical order)

Would Klemperer have allowed his name to be affixed to the paper if he did not participate in the actual study and the writing?
No!

What if Berg had not been so peculiar (writing papers with his name alone)?
We probably would be talking about Berg disease!

Paul Klemperer embodied the virtues and triumphs of both the new and the old world pathology. He was dedicated to medical science as a whole but considered pathology to be the central theme and the role of the pathologist to be that of an orchestra conductor directing the instruments of many artists. He combined humility and wisdom with a pervading devotion to the stimulation and development of young people.

Hans Popper, M.D., Ph.D., 1964

He was the hospital’s conscience and principal intellectual guide.

Saul Jarcho, M.D.
So, when all is said and done – what do we call this chronic, distinct, still incompletely understood pathophysiologic entity?

However...

- Eponyms are almost gone from medical use
- History does not seem to matter very much
- Change of any kind, including changing disease names, is not so easy
- The Crohn, Ginzburg, Oppenheimer paper was the first to clearly describe the pathophysiologic features of the disease
- Therefore, until the specific etiology is determined and an appropriate scientific name is developed, it is still

**Crohn disease**

Had Paul Klemperer given this presentation – and it would have been a far more learned presentation than mine – he would end by saying:

It is not so great an honor to speak to a medical audience ... but to be listened to by a medical audience, there's the honor.

Paul Klemperer (1887-1964)

Thank you for your attention ...

... questions or comments?

References

Asser, Bishop of Sherborne. The Life of King Alfred, 893.


Lilienthal H. Hyperplastic colitis: extirpation of the entire colon, the upper portion of the sigmoid flexure, and four inches of the ileum for hyperplastic colitis. Am Med 1903;1:164-165.


