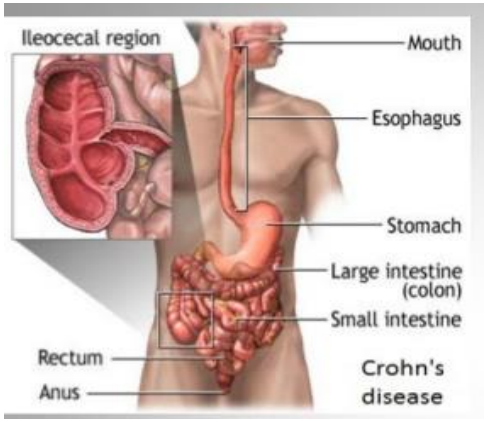
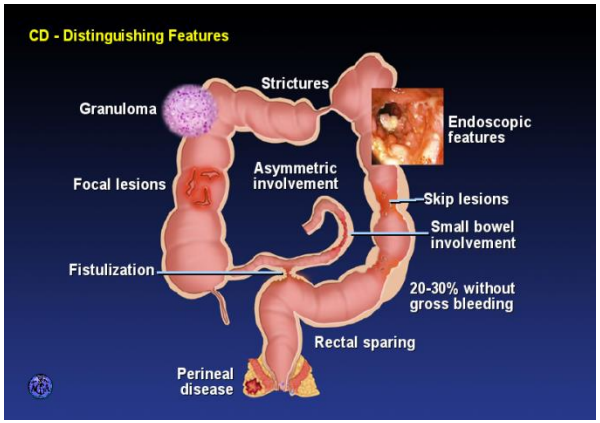
Is Crohn`s disease increasing in Egypt?

Mohamed EL-hemaly

Gastro- intestinal surgical center, Mansoura University.

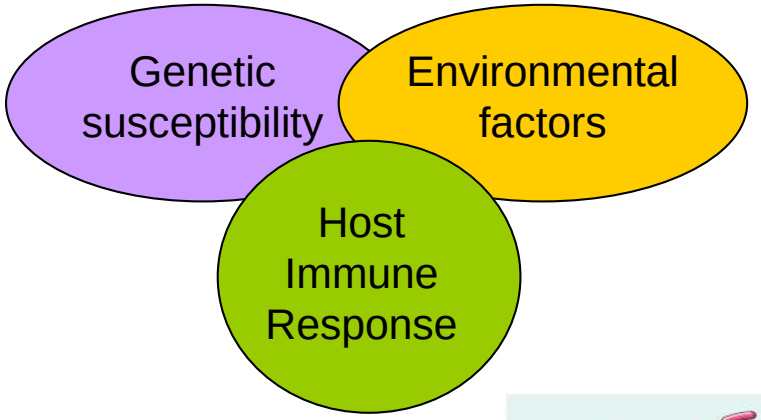
Chronic transmural inflammatory process of the bowel & affects any part of the gastro -intestinal tract from the mouth to the anus.

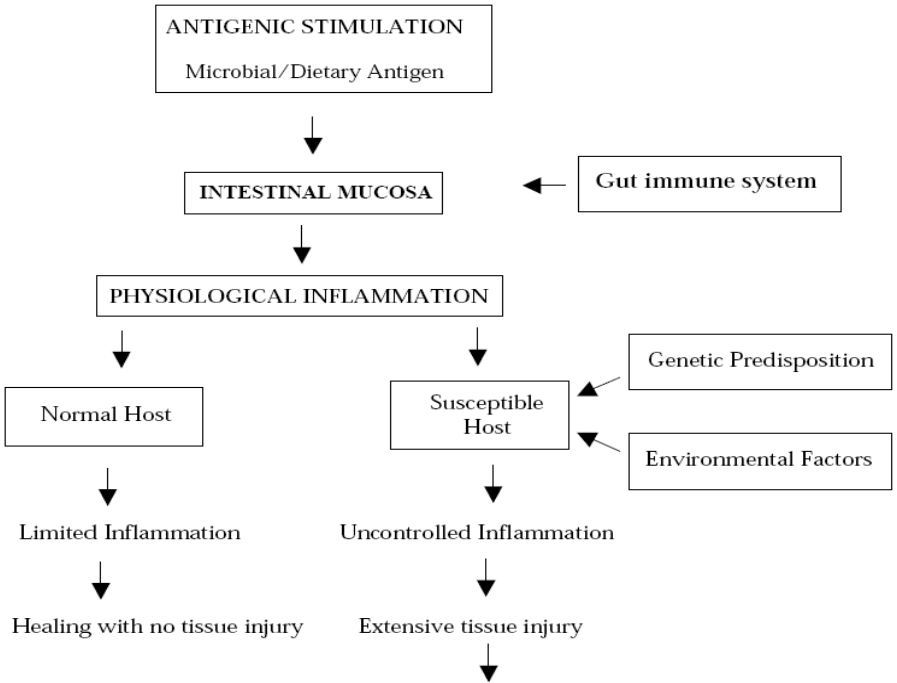


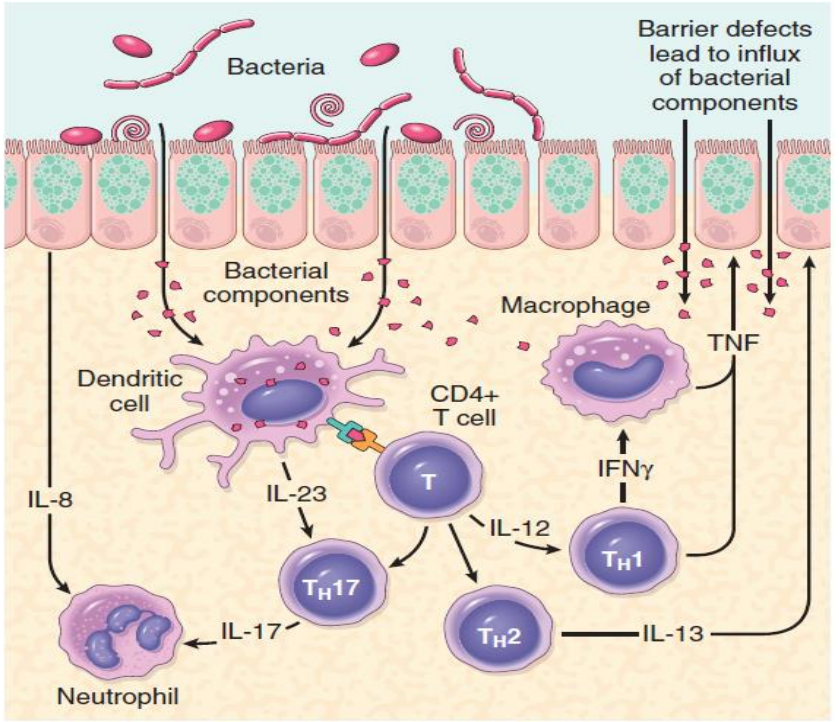


- 1806: First reported case of Crohn's by *Combe and Sanders* to the Royal College of Physicians in London, England.
- 1913: Surgical evidence of the disease reported in the paper 'Chronic Intestinal Enteritis' written by *Dr. Kennedy*.
- Described in 1932 by *Crohn, Ginsburg, and Oppenheimer* of Mount Sinai Hospital in New York.

Etiology & Pathogenesis







Aim

To present 7 cases of CD seen in 18 months by a single author to ask :

1- Is it increasing in Egypt nowadays or it is just a coincidence ?,

2- Why late diagnosis of such cases ?,

3 - Is exploration still has a rule in vague cases ?

Data of patients were reviewed & will be shown in a systematic manner like description of the disease

Baseline clinical characteristics

Character	No.
Total number	7
Male : Female	6:1
Married	3
Smoking	1
Duration of the disease	1-3.5 years
Age at surgery 20-32 Y 56 Y	 6 1
Previous medications Pentasa & cortisone	 1
Comorbid diseases	No
Previous surgery Appendicitis	 1
Previous blood transfusion	3

Disease location

- Commonest site : Ileum (involved in 80% of cases)
- Small gut alone 50% , Both small gut & colon 40% , Colon alone 10%

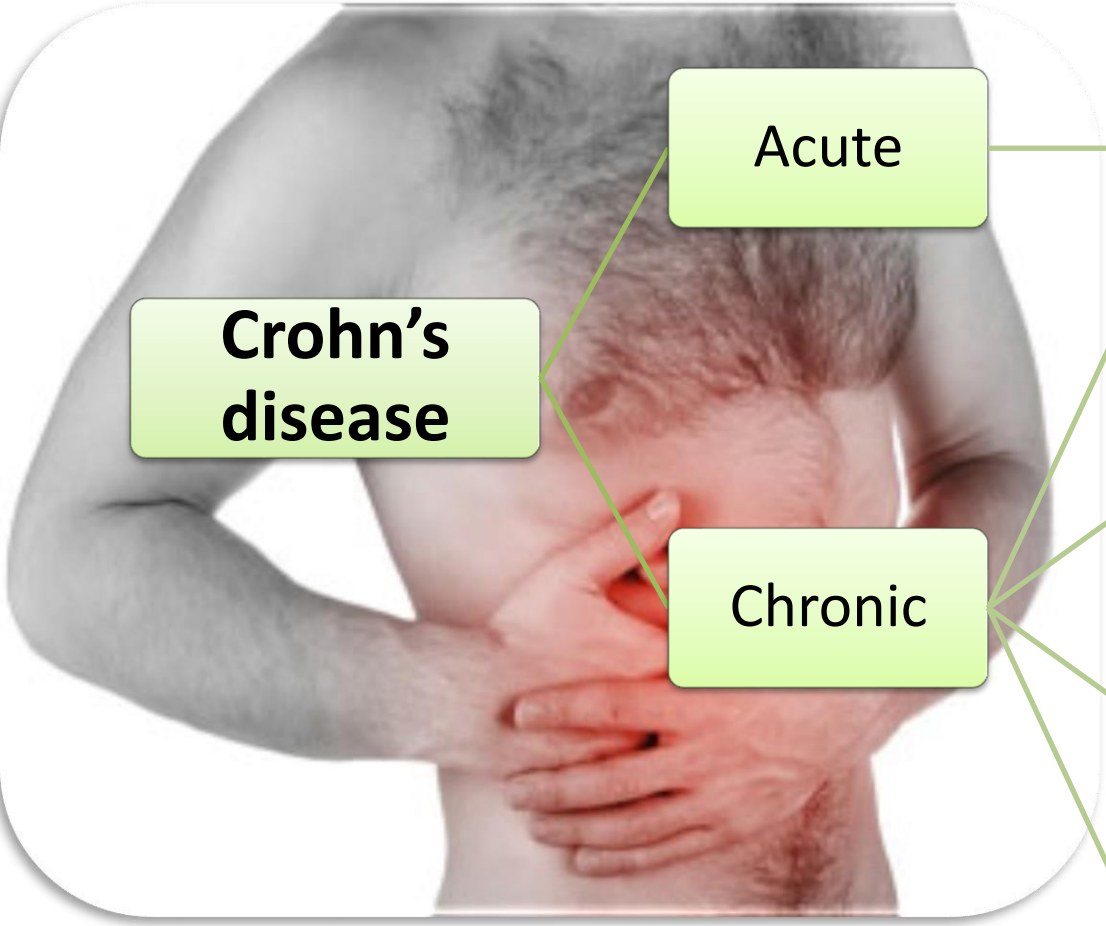
Distribution	No.
Isolated lesion	6
Double lesions	1
Mid ileal	1
Terminal ileum	5
Terminal ileum & sigmoid colon	1
Other GIT lesions	No
Perianal disease	No

Diagnosis is a combination of Clinical , Raiological , Laboratory , Endoscopic & Histopathological features

Clinical

Intestinal or extraintestinal

People with CD go through periods of flare-ups and remission.



Crohn's disease

- Acute
  - Acute onset resembling appendicits
- Chronic
  - Chronic ill health
  - Recurrent attacks of abdominal pain & diarrhea
  - Low grade fever
  - Tender mass in the right iliac fossa

Clinical presentations

	Number
Acute	
Intestinal obstruction	2
Chronic	
Diarrhea	5
Colicky pain	4
General ill health	4
Weight loss	3
Bleeding per rectum	1
Extraintestinal manifestations	0

Investigations

Type	Character
Lab. Investigations Haemoglobin level Creatinin Blood sugar	 6.5-11.3 0.7 -2 Normal
Plain x-ray abdomen “dilated intestinal loops “	 2
Abdominal US	Non significant
Abdominal CT	Suspicious mural thickening
Barium enema	Long smooth narrow segment in sigmoid colon
Ba.follow through	Highly suspicious in 2 cases
colonoscopy	Narrow sigmoid impassable to the endoscope
Enteroscopy	Not done

Lab. Investigations	
Haemoglobin level	**6.5-11.3**
Creatinin	**0.7 -2**
Blood sugar	**Normal**
albumin	**3.2-4.5**
Plain x-ray abdomen “dilated intestinal loops “	2
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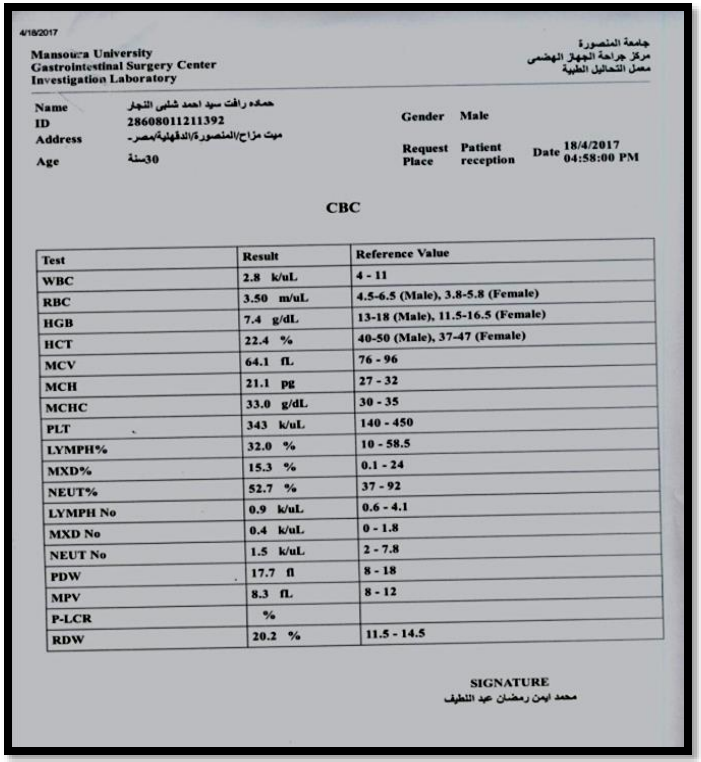


4/18/2017

Mansoura University
Gastrointestinal Surgery Center
Investigation Laboratory

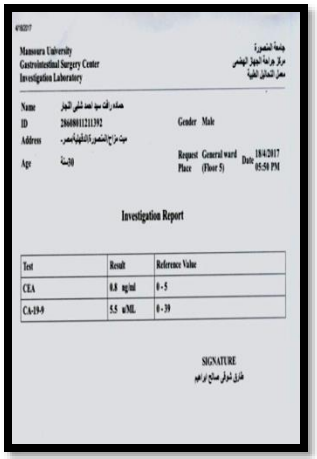
جامعة المنصورة
مركز جراحة الجهاز الهضمى
معمل التحاليل الطبية

Name حماده رافت سيد احمد شلبى النجار
ID 28608011211392
Address ميت مزاح/المنصورة/الدقهلية/مصر-
Age 30سنة
Gender Male
Request Place Patient reception
Date 18/4/2017 04:58:00 PM

CBC

Test	Result	Reference Value
WBC	2.8 k/uL	4 - 11
RBC	3.50 m/uL	4.5-6.5 (Male), 3.8-5.8 (Female)
HGB	7.4 g/dL	13-18 (Male), 11.5-16.5 (Female)
HCT	22.4 %	40-50 (Male), 37-47 (Female)
MCV	64.1 fL	76 - 96
MCH	21.1 pg	27 - 32
MCHC	33.0 g/dL	30 - 35
PLT	343 k/uL	140 - 450
LYMPH%	32.0 %	10 - 58.5
MXD%	15.3 %	0.1 - 24
NEUT%	52.7 %	37 - 92
LYMPH No	0.9 k/uL	0.6 - 4.1
MXD No	0.4 k/uL	0 - 1.8
NEUT No	1.5 k/uL	2 - 7.8
PDW	17.7 fl	8 - 18
MPV	8.3 fL	8 - 12
P-LCR	%	
RDW	20.2 %	11.5 - 14.5

SIGNATURE
محمد ايمن رمضان عبد اللطيف



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Gastrointestinal Surgery Center
Investigation Laboratory

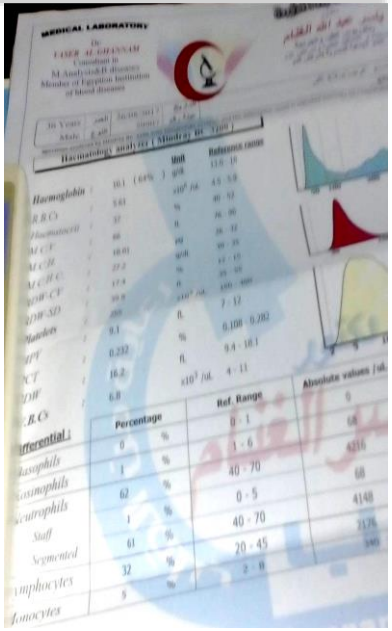
جامعة المنصورة
مركز جراحة الجهاز الهضمى
معمل التحاليل الطبية

Name
ID
Address
Age
Gender Male
Request Place General ward (Floor 5)
Date 18/4/2017 05:50 PM

Investigation Report

Test	Result	Reference Value
CEA	8.8 ng/ml	0-5
CA-19-9	5.5 u/ML	0-39

SIGNATURE



MEDICAL LABORATORY

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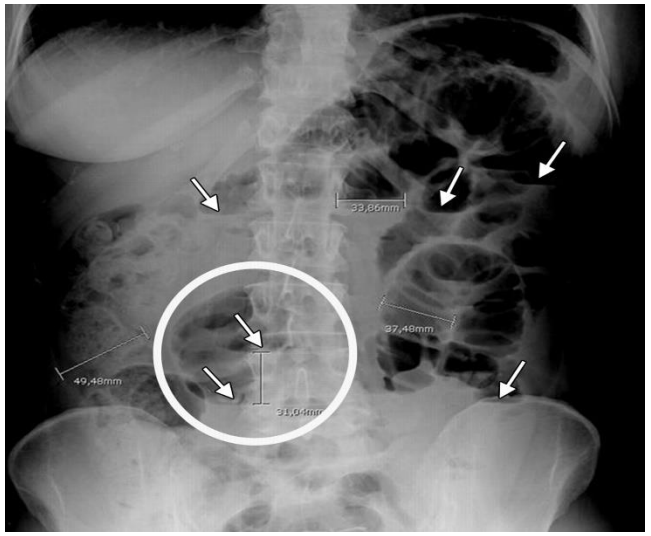


Step ladder configuration

U/S

Intestinal manifestations

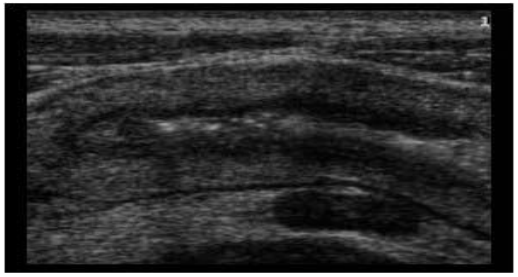
- Mural thickening.
- Mural hypervascularity
- Loss of layering (partial or total).
- Reduced or absent peristalsis of the involved segment.
- Non compressibility of the involved segment.

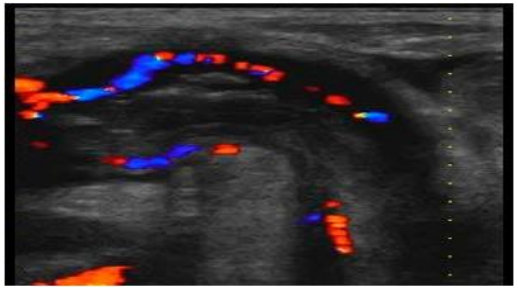
Extra-intestinal manifestations

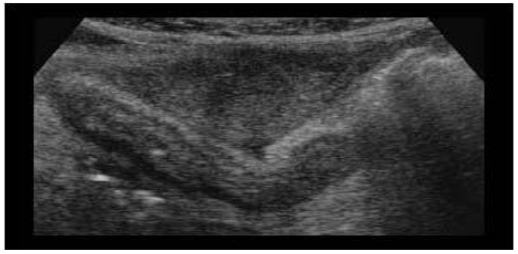
- Mesenteric creeping fat.
- Mesenteric lymphadenopathy.

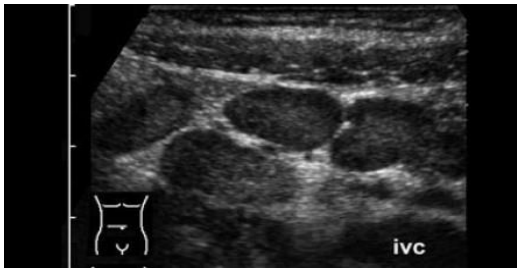
Complications

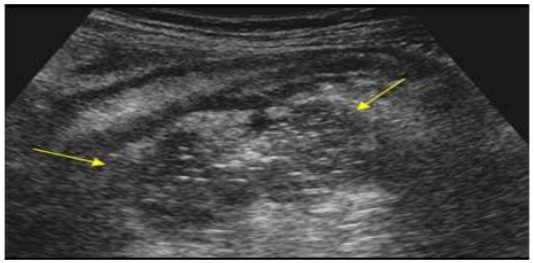
- Obstruction.
- Phlegmon / abscess.
- Perforation.







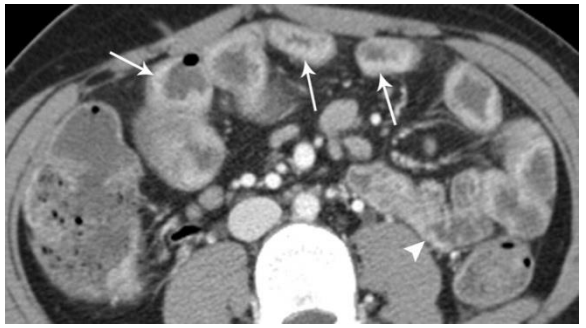




CT

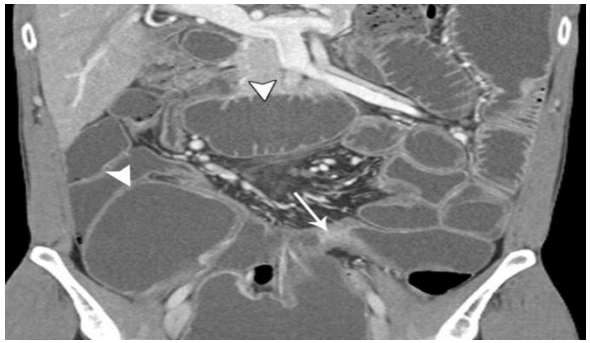
1ry intestinal manifestations

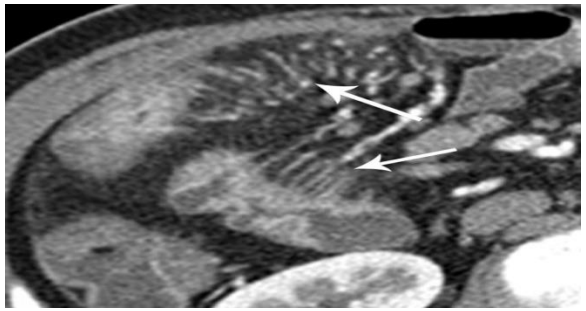
- Mural thickening.
- Mural hyper-enhancement.
- Mural stratification.
- Stricture.



Extra-intestinal manifestations

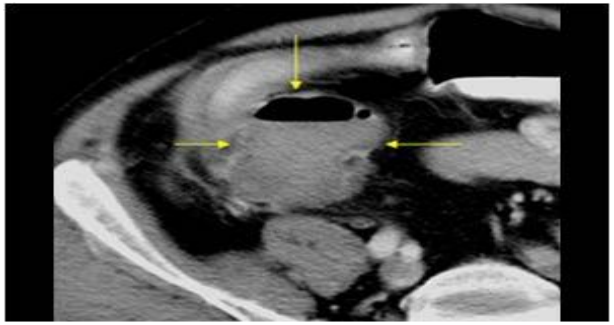
- Mesenteric fibrofatty proliferation (creeping fat)
- Mesenteric stranding (hazy fat).
- Mesenteric lymphadenopathy.
- Mesenteric hypervascularity (Comb sign).





Complications

- Obstruction.
- Phlegmon / Abscess.
- Perforation.
- Fistula.



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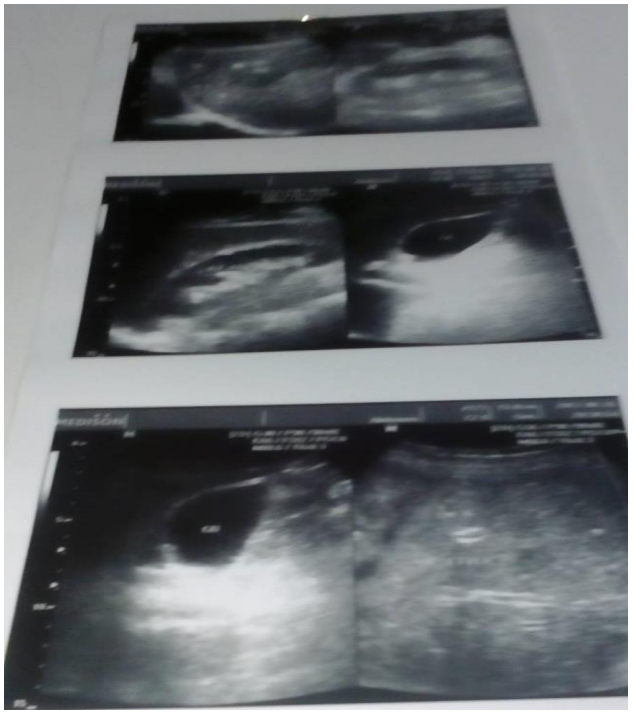

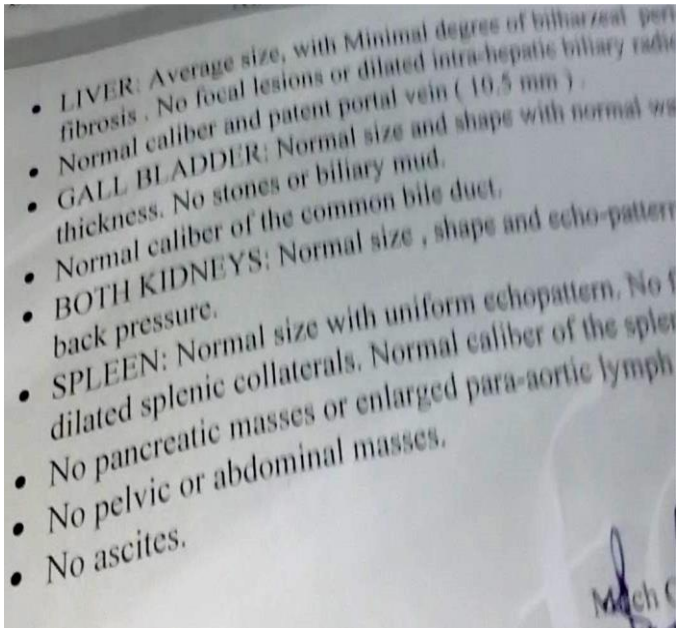

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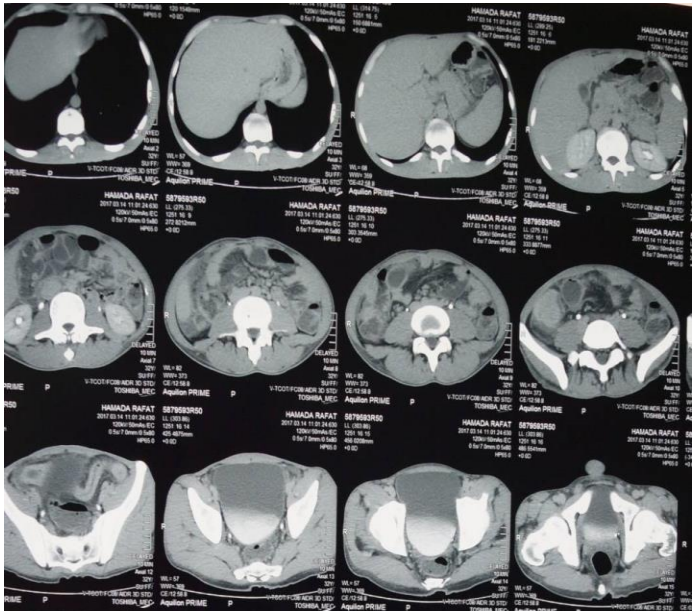
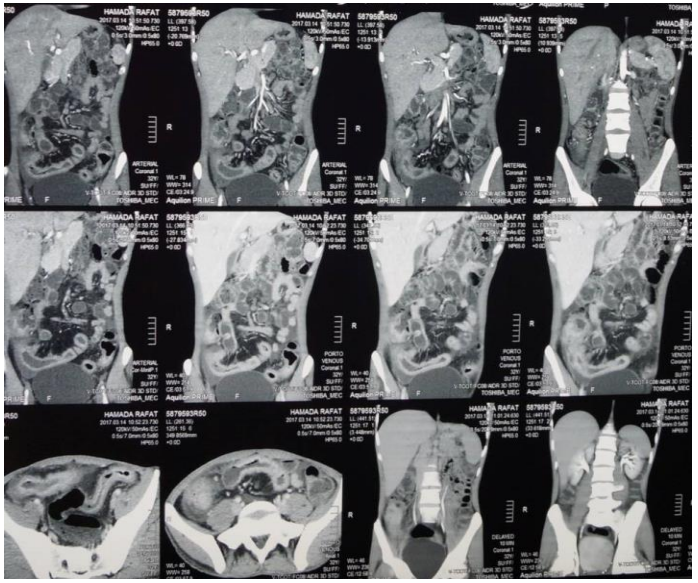




3/15/17

Mansoura University
Gastrointestinal Surgery Center
Radiology Department

جامعة المنصورة
مركز جراحة الجهاز الهضمى
قسم الأشعة

Patient Name حماده رافت سيد احمد شلبى النجار **Age on (14/3/2017)** 30سنة

Patient No 28608011211392 **Date** 14/3/2017 02:34:00 PM

Triphasic CT Abdomen Revealed :-

* Diffuse circumferential wall thickening of the cecum and terminal ileum associated with stranding of the surrounding fat planes,it measures about 17 mm in thickness and involving about 20 cm of the terminal ileum.
* Another long segment of circumferential wall thickening involving sigmoid colon measures about 10 cm in length and 8 mm in maximum wall thickness .
* Thin rim of abdominal free fluid.
No other significant findings.

-CONCLUSION:

* CT findings are impressive of inflammatory bowel disease for endoscopic assessment.

MUCH OBLIGED

Dr.Ahmed Attia

Dr.Mohamed Settein

13732285

Patient name: HAMADA RAAFAT EL NAGAAR (152964)
Exam date: 20/2/2016 **Accession No.:** 302418
Referred by: Prof. Dr. SAYED SALEM.

FOLLOW UP MULTI-SLICE CT VIRTUAL COLONOSCOPY AND COLONOGRAPHY REVEALED:

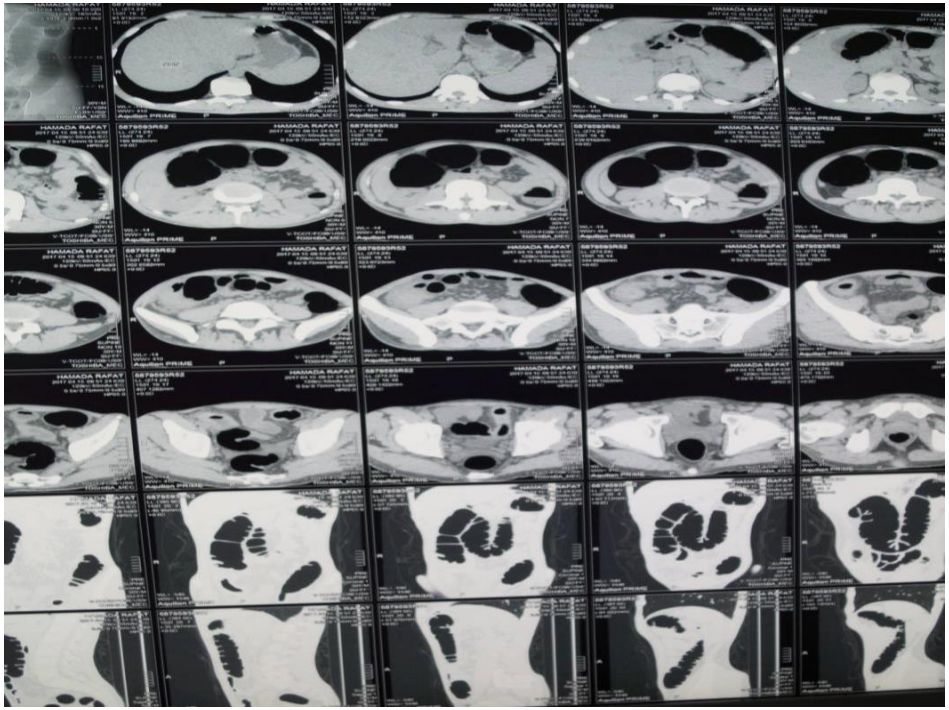
Comparing with the previous CT study dated 6 / 11 / 2015, The current study revealed

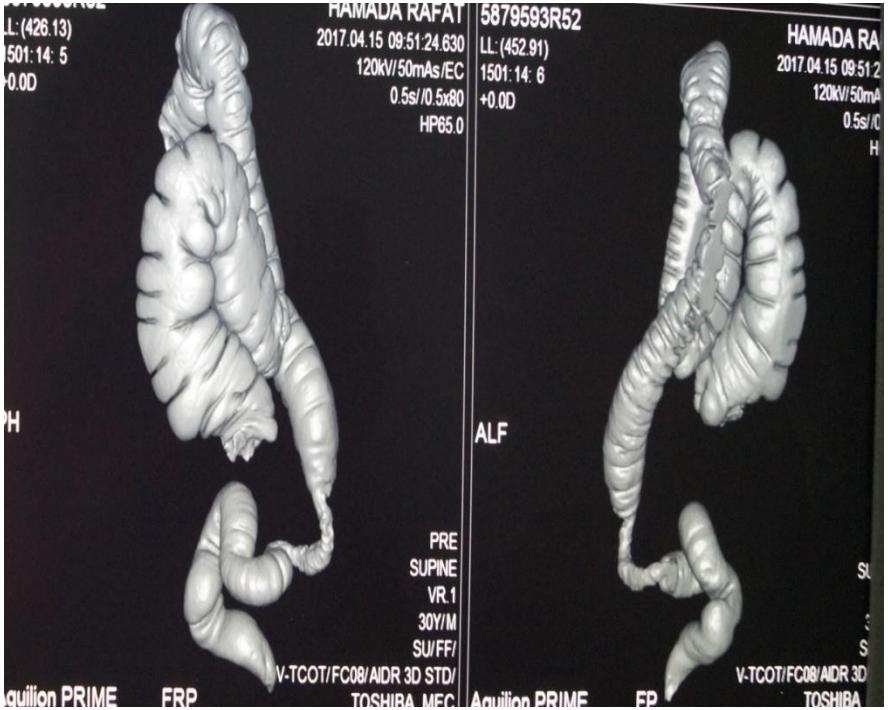
- Progressive course regarding the previously described thickness and narrowing of the terminal ileum and sigmoid colon.
- Mild intra-peritoneal pelvic free fluid.
- Normal configuration and haustral markings of the rectum, descending colon, splenic flexure transverse colon, hepatic flexure, ascending colon and caecum.
- No intra-luminal or extra-luminal masses.
- No colonic neoplastic masses.

CONCLUSION:

- Progressive course regarding the terminal ileum and sigmoid colon mural thickening and narrowing suggesting inflammatory bowel disease.
- Mild intra-peritoneal pelvic free fluid.
- No detected masses.

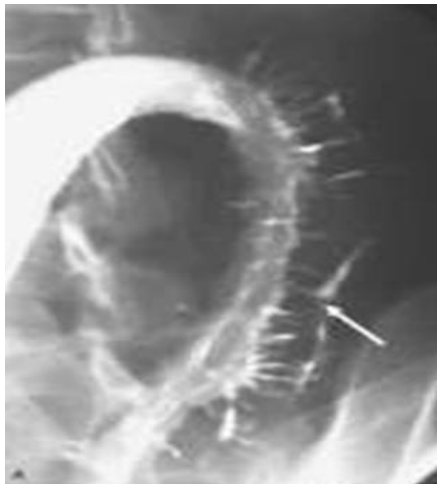
Much Obliged
DR. ALI H. ELMOKADEM MD.

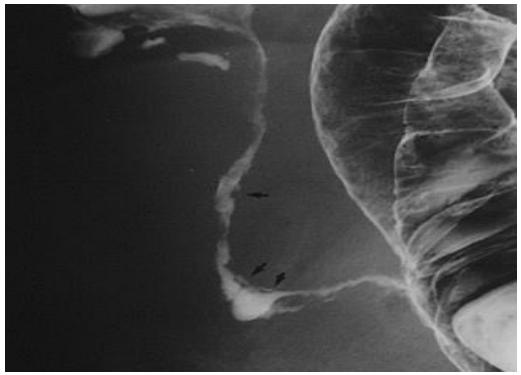


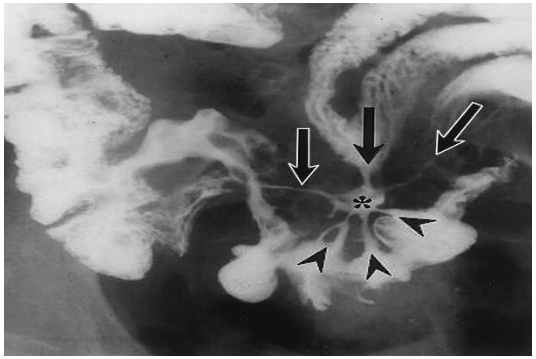


Barium studies

- Ulcers.
- Nodular pattern.
- Ulcero-nodular pattern.
- Stricture.
- Straightening of the mesenteric border.
- Sacculation of the antemesenteric border.
- Wide separation.
- Fistula.







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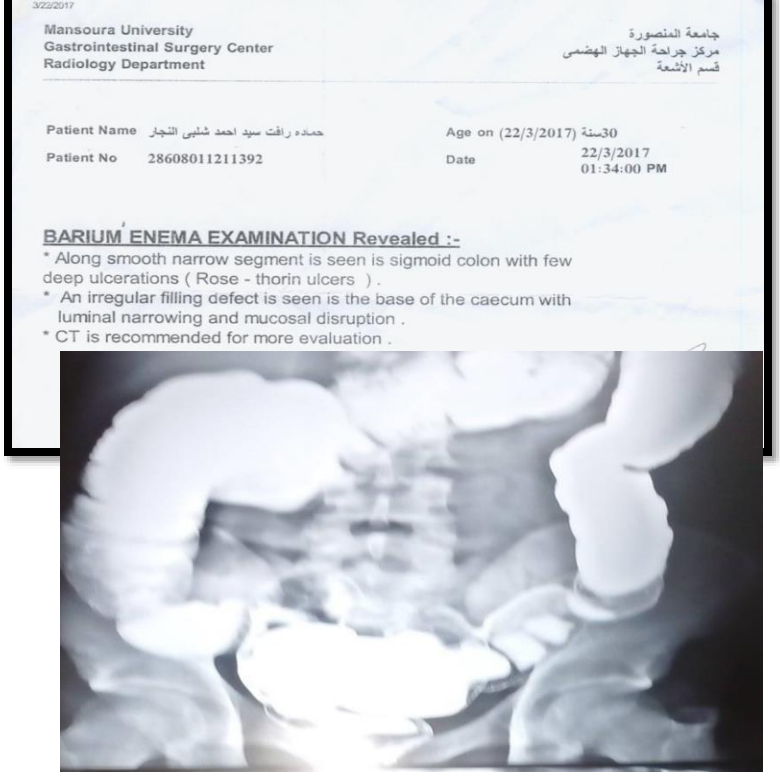
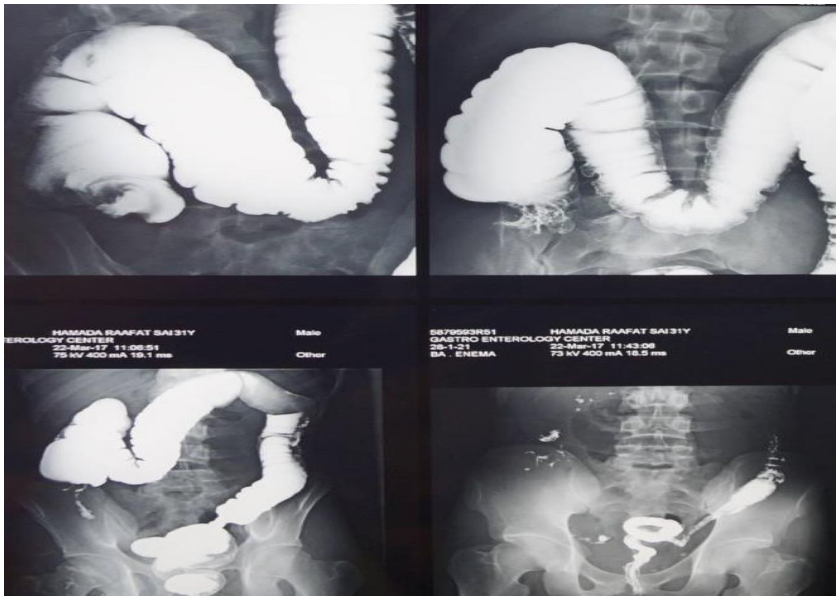

Mansoura University
Gastrointestinal Surgery Center
Radiology Department

جامعة المنصورة
مركز جراحة الجهاز الهضمى
قسم الأشعة

Patient Name حماده رافت سيد احمد شلبى النجار
Age on (22/3/2017) 30سنة
Patient No 28608011211392
Date 22/3/2017 01:34:00 PM

BARIUM ENEMA EXAMINATION Revealed :-
* Along smooth narrow segment is seen is sigmoid colon with few deep ulcerations (Rose - thorin ulcers) .
* An irregular filling defect is seen is the base of the caecum with luminal narrowing and mucosal disruption .
* CT is recommended for more evaluation .



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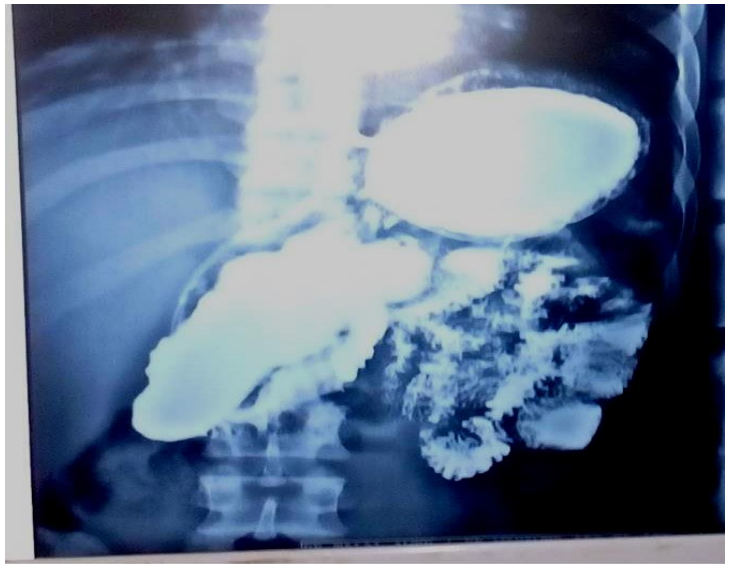
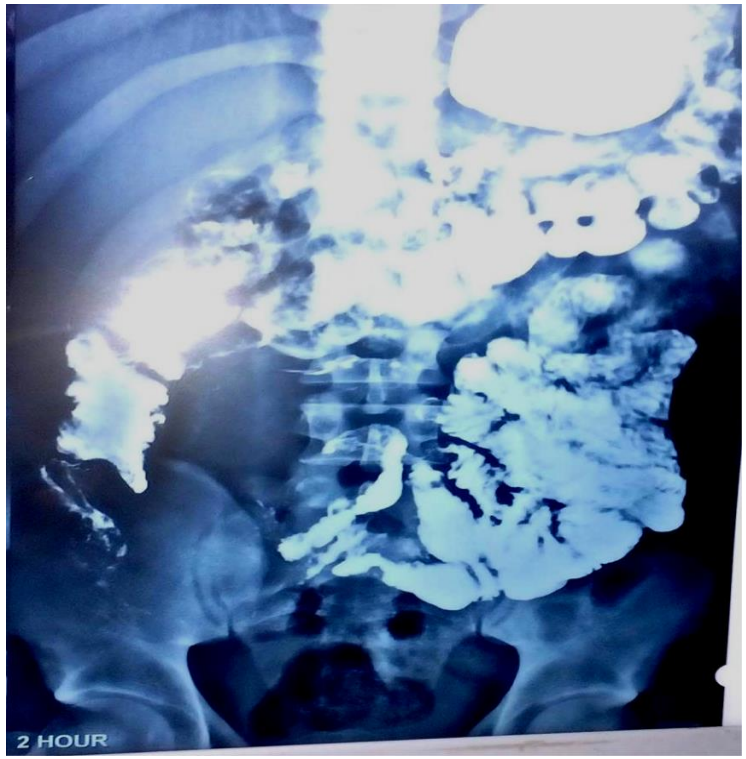
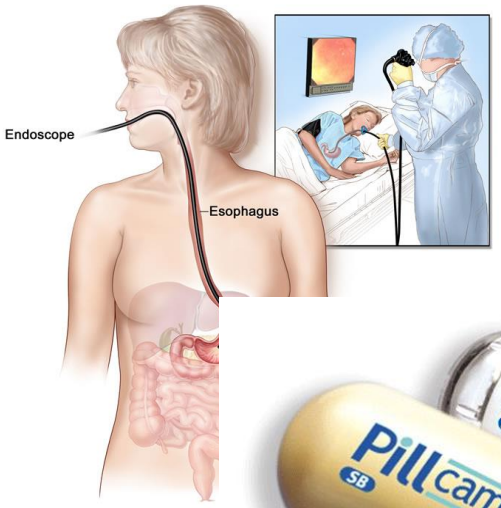
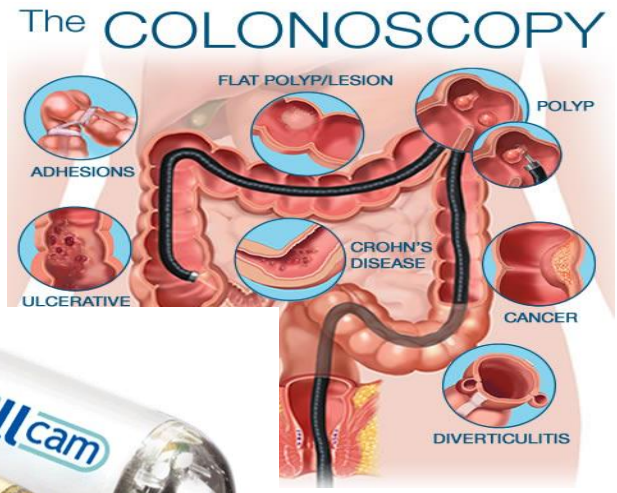
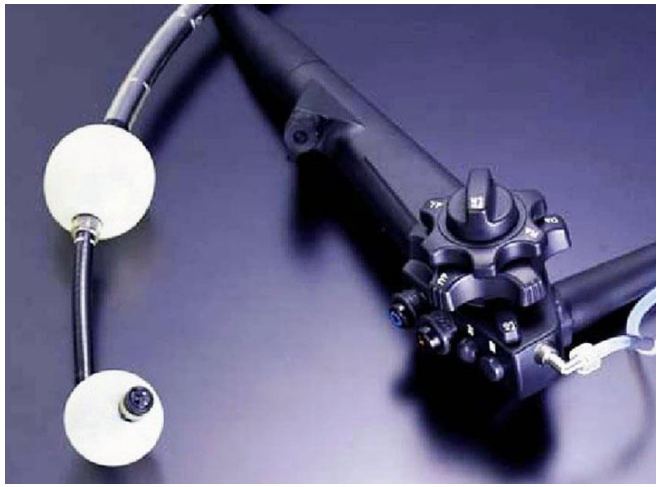




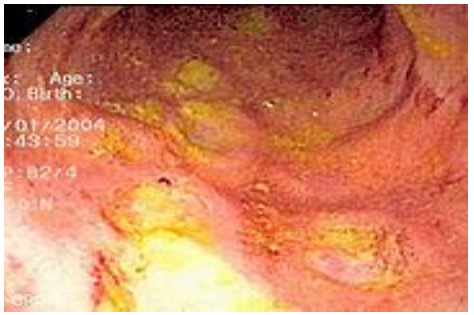
Endoscopy

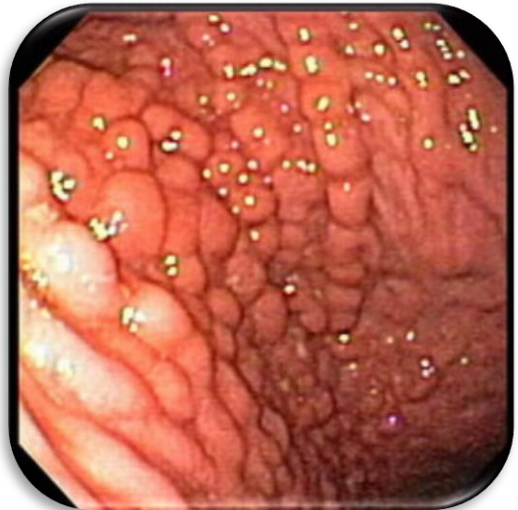

Endoscope
Esophagus

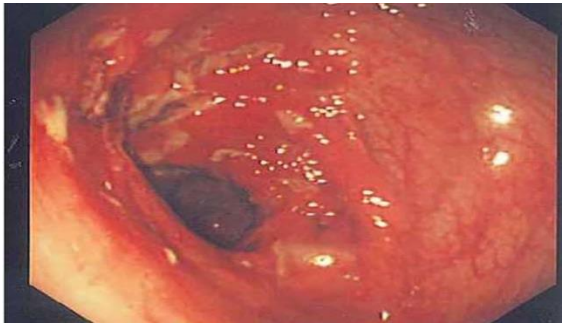

The COLONOSCOPY
FLAT POLYP/LESION
POLYP
ADHESIONS
CROHN'S DISEASE
ULCERATIVE
CANCER
DIVERTICULITIS



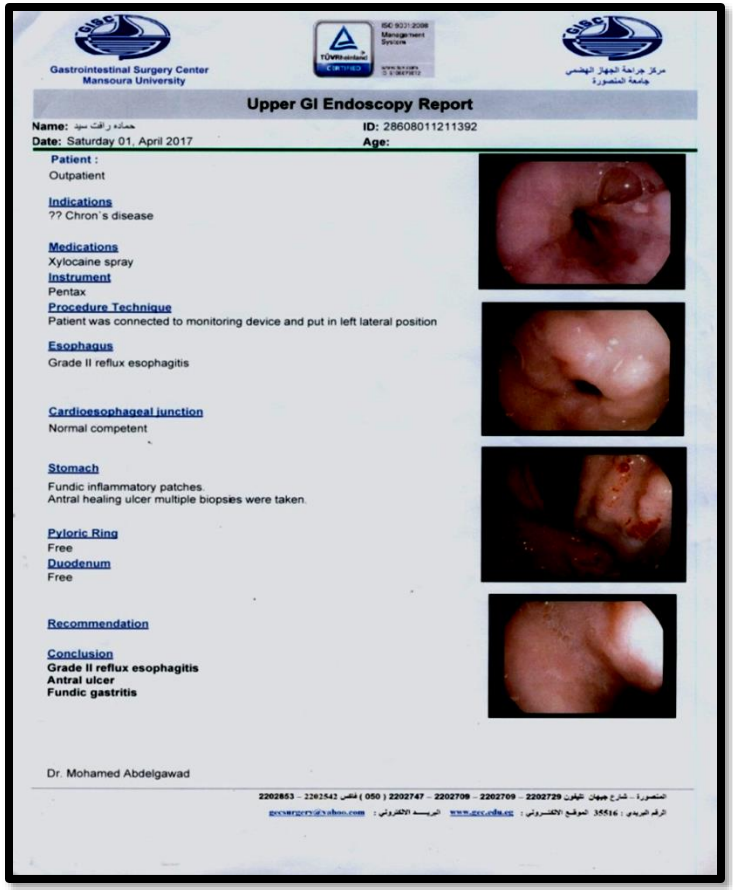

Pillcam
ESO
Pillcam
SB







Lab. Investigations **Haemoglobin level** **Creatinin** **Blood sugar**	**6.5-11.3** **0.7 -2** **Normal**
Plain x-ray abdomen “dilated intestinal loops “	2
Abdominal US	Non significant
Abdominal CT	Suspicious mural thickening
Barium enema	Long smooth narrow segment in sigmoid colon
Upper endoscopy	free
Colonoscopy	Narrow sigmoid impassable to the endoscope in 1 case
Enteroscopy	Not done



Gastrointestinal Surgery Center
Mansoura University

Upper GI Endoscopy Report

Name: حماده رافت سيد
ID: 28608011211392
Date: Saturday 01, April 2017
Age:

Patient :
Outpatient

Indications
?? Chron`s disease

Medications
Xylocaine spray

Instrument
Pentax

Procedure Technique
Patient was connected to monitoring device and put in left lateral position

Esophagus
Grade II reflux esophagitis

Cardioesophageal junction
Normal competent

Stomach
Fundic inflammatory patches.
Antral healing ulcer multiple biopsies were taken.

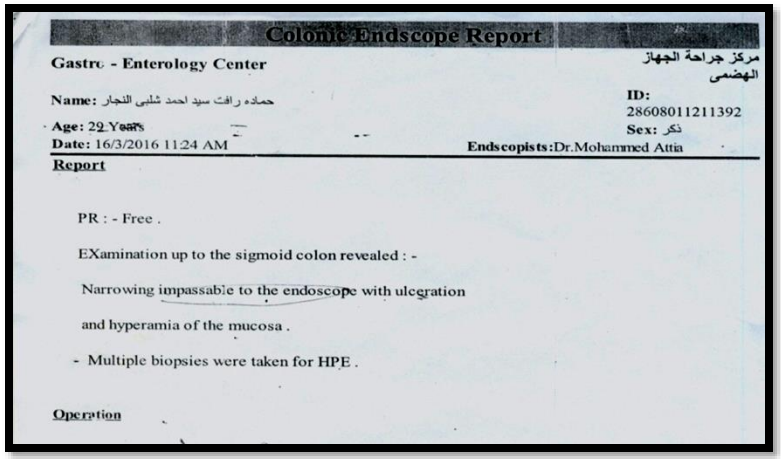
Pyloric Ring
Free

Duodenum
Free

Recommendation

Conclusion
Grade II reflux esophagitis
Antral ulcer
Fundic gastritis

Dr. Mohamed Abdelgawad



Colonic Endscope Report

Gastro - Enterology Center
مركز جراحة الجهاز الهضمى

Name: حماده رافت سيد احمد شلبى النجار
ID: 28608011211392
Age: 29 Years
Sex: ذكر
Date: 16/3/2016 11:24 AM
Endscopists: Dr.Mohammed Attia

Report

PR : - Free .

EXamination up to the sigmoid colon revealed : -

Narrowing impassable to the endoscope with ulcegration

and hyperamia of the mucosa .

- Multiple biopsies were taken for HPE .

Operation

Surgical treatment

Indications :

- Intractability
- Intestinal obstruction
- Intra-abdominal abscess
- Fistulas
- Cancer
- Growth Retardation
- Fulminant Colitis and Toxic Megacolon
- Massive bleeding

Around 80% of Crohn's patients undergo surgery at some stage, and 70% of these require more than one operation during their lifetime. Clinical recurrence following resectional surgery is present in 50% of all cases at 10 years.

Indications for Surgery in our cases

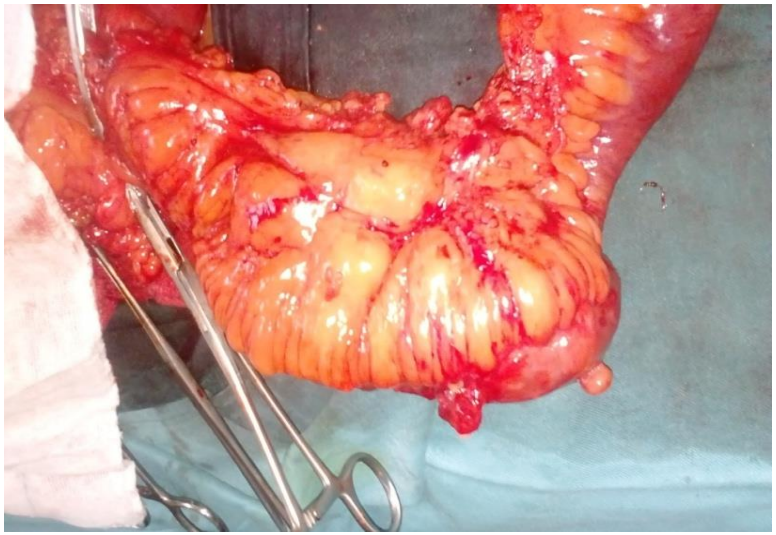
Definite diagnosis was not made before operation but exploration was done on suspicion because of

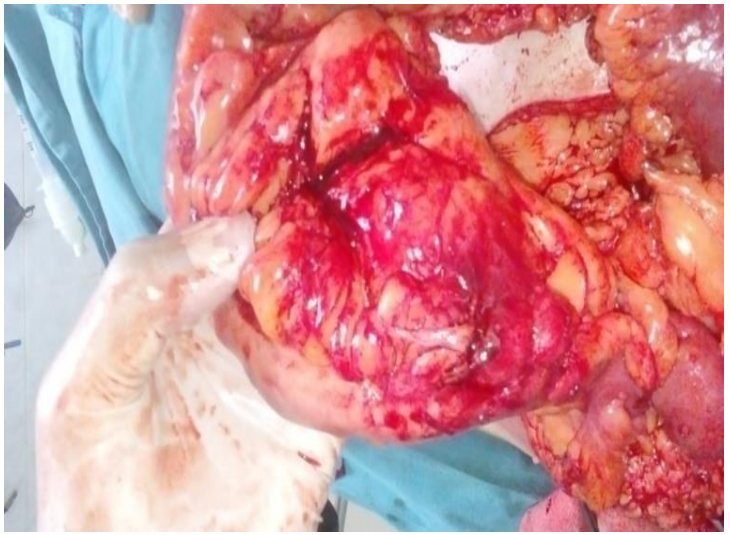
- Diarrhea interfering with daily activity
- Colicky pain interfering with daily activity
- General ill health
- Bleeding per rectum
- Intestinal obstruction

All cases were done by open not laparoscopic approach,5 cases in a private hospital & 2 cases in GISC.

Disease behaviour at exploration

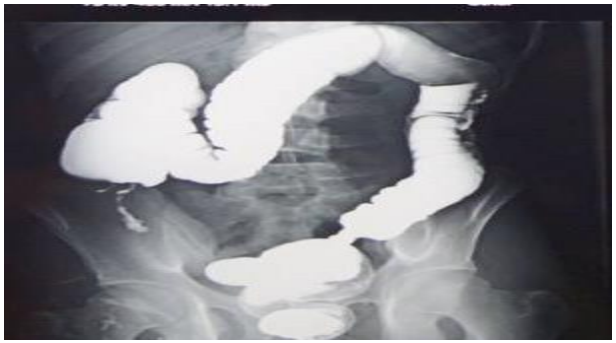
Non- stricturing , non -penetrating	**6**
Stricturing	1
penetrating	0
Perianal	0

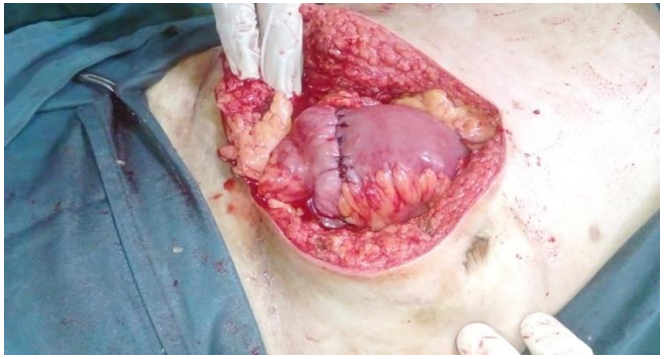


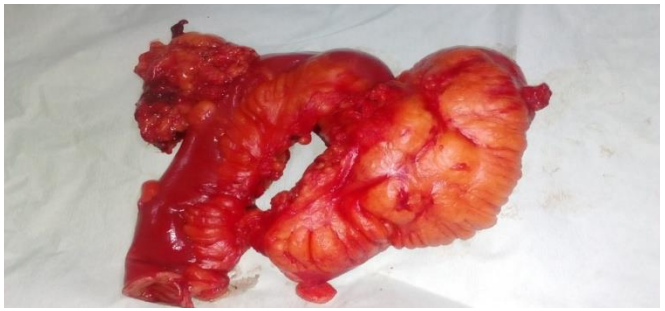


Surgical procedures

Limited ileal resection & ileo-ileal anastomosis	2
Terminal ileal resection & ileocaecal anastomosis	4
ILeal resection + sigmoidectomy	1
Stoma needed	N0





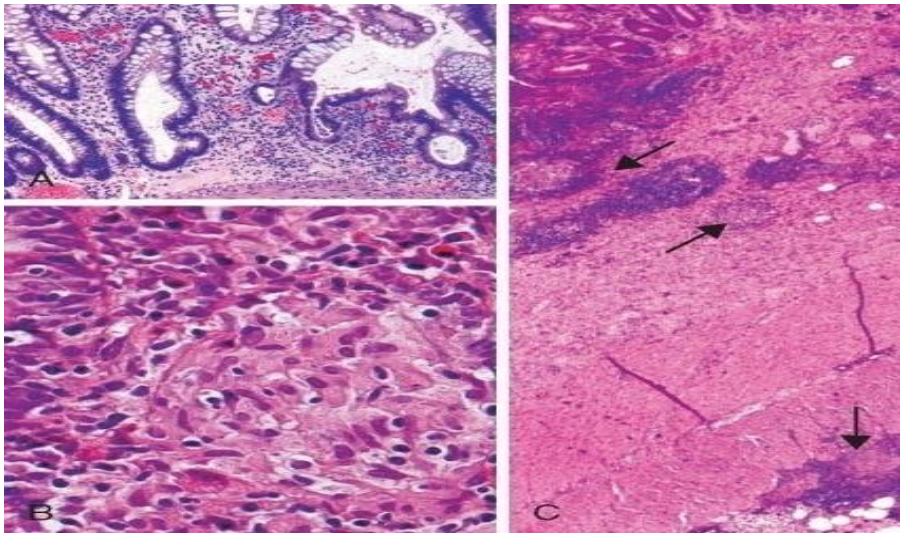


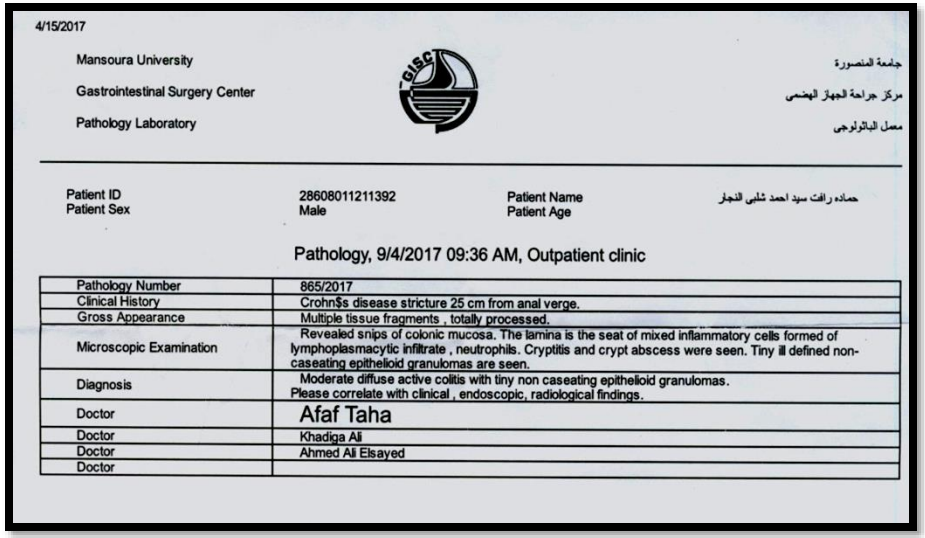
- limited disease-free (2 cm) resection margins are adequate, to conserve bowel length and no increased risk of disease recurrence.

- The anastomoses were constructed with manual sutures in 2 layers

Postoperative pathology

transmural inflammation Non caseating granuloma fissures oedem & fibrosis LN : follic. hyperplasia+sinus histocytosis	7 6 1 3 5
Lymphovscul. emboli,perineural invasion	0
Cancer association	1
Safety margin	Free





4/15/2017

Mansoura University
Gastrointestinal Surgery Center
Pathology Laboratory

جامعة المنصورة
مركز جراحة الجهاز الهضمى
معمل الباثولوجى

Patient ID Patient Sex	28608011211392 Male	Patient Name Patient Age	حماده رافت سيد احمد شلبى الدجاو

Pathology, 9/4/2017 09:36 AM, Outpatient clinic

Pathology Number	865/2017
Clinical History	Crohn$s disease stricture 25 cm from anal verge.
Gross Appearance	Multiple tissue fragments , totally processed.
Microscopic Examination	Revealed snips of colonic mucosa. The lamina is the seat of mixed inflammatory cells formed of lymphoplasmacytic infiltrate , neutrophils. Cryptitis and crypt abscess were seen. Tiny ill defined non-caseating epithelioid granulomas are seen.
Diagnosis	Moderate diffuse active colitis with tiny non caseating epithelioid granulomas. Please correlate with clinical , endoscopic, radiological findings.
Doctor	Afaf Taha
Doctor	Khadiga Ali
Doctor	Ahmed Ali Elsayed
Doctor	

Pathology report

Patient name: محمد كامل عبدالرحمن	Age: 55 y	Sex: male
Referred by: ا.د/ محمد الحملى	Date: 24 / 5 / 2017	Code: 0240517
		P. code: 00 colon

History:

Patient presented with intestinal obstruction. On exploration, there is spastic segment in the forum.

Specimen 1: Rt colon Specimen 2: appendix.

For histopathological evaluation.

Gross:

1. Specimen consists of intestinal segment About 35 cm in length with narrow areas alternating with wide areas (skip lesion). On cut section, there is mass about 2x1in the middle of the specimen with hard consistency& grayish white colour. There are (5) dissected regional LNs.

2. Appendectomy specimen: the appendix is 5 cm and mildly thickened.

Microscopic Examination:

tubulovillous adenomatous changes in the mucosa with infiltration of the underlying wall down to deep muscle by tumoral proliferation formed of acini and sheets of malignant epithelial cells exhibiting moderate degree of pleomorphism and with frequent mitotic activity. The stroma in between is desmoplastic.

The regional (5) dissected LNs show reactive follicular hyperplasia with sinus histiocytosis.

Sections prepared from both surgical cut ends &appendix are free from tumor tissue.

To be continued

There is no lymphovascular emboli or peri-neural invasion.

The nearby intestinal wall shows partially ulcerated mucosa with transmural chronic inflammatory cellular reaction, edema and fibrosis.

2. Sections prepared from the appendix show mild chronic inflammatory changes.

Diagnosis:

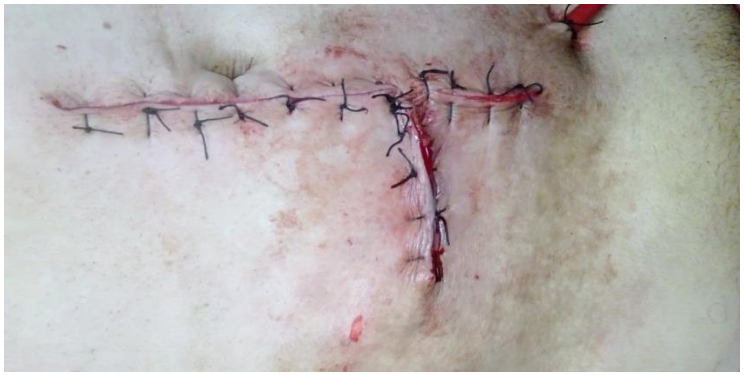
Picture of GIT adenocarcinoma infiltrating the wall down to the subserosa associated with Crohn's disease.
There is reactive follicular hyperplasia with sinus histiocytosis of the 5 dissected LNs. There is no lymphovascular emboli or perineural invasion.
Both surgical cut ends & appendix are free from tumor tissue.
(Astler & Collar modification of Dukes' classification; stage B2).
TNM staging:T2N0Mx :Stage A at least.

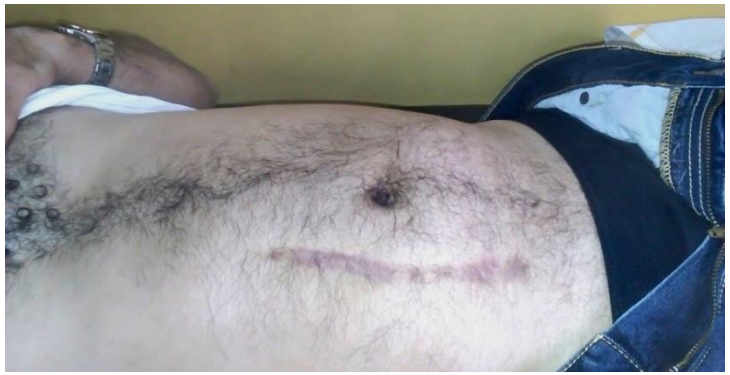
Thanks for your reference

Signature

Postoperative complications

Anastomotic leak	**0**
Wound infection	1
Prolonged ileus	0
Cardiopumonary complications	0
Persistent symptoms after surgery	0
Recurrence	0





Conclusion & Message

We can not draw a final conclusion from such a limited number of patients

1- CD is increasing in Egypt, possibly due to *westernization* of our life & *stress* which impairs immunity.

2-Patients with CD are always diagnosed *late* as:

It is not in mind,

Radiologist & pathologist are afraid to diagnose with confidence

3- *Exploratory laparotomy* after necessary investigations is still has a role though advanced investigations


Thank You!