



TREATMENT OF PEPTIC ULCER DISEASE

• AIM OF TREATMENT:

- RELIEVE SYMPTOMS. ← نشيل
- HEAL THE ULCER. ← أعالج
- PREVENT COMPLICATIONS. ← حدوث مضاعفات
- PREVENT RECURRENCES. ← رجوعه مرة ثانية

← في ناسي تأخذ ال antimicrobials & antibiotics لاشهن عدو لانه عندنا resistance (مقاومة) حليلك

amoxicillin زي ال
tetracycline

+ هي تكطم ال defensive mechanism

erythromycin
metronidazole
Bismuth
proton pump inhibitor

في كلزح نتخذ ح ما يقلل ال H^+ زي antacids
histamin 2 antagonist/inhibitor
proton pump inhibitor

على الرغم من أنها رخيصة لكن استخدامها

مشكلة كويس لانه اله
Side effects

ANTACIDS

← صفة فائقة

← بعد الأكل

← الجواب مفضل للمريض أكثر فاشترى ما مش

كثير recommended للبر استخدام.

- Rapid symptomatic relief.
- Cheap.
- Large amounts are required to heal ulcers leading to undesirable side effects.
- If taken on an empty stomach; they are effective only for 10-20 minutes.
- If taken one hour after meals, they are effective for 2-3 hours.
- Tablet preparations are less effective than suspensions.

توقف كل ال H₂ receptors ← قتل صلا acid secretion خلال 24 ساعة ما نسبة (60-70%)

لكن ال proton pump inhibitors ← قتل = = = = = 24 ساعة = (90%)

HISTAMINE- RECEPTOR ANTAGONISTS (H2-Blockers)

توقف صلا

• Act through blocking H₂ receptors in the parietal cells.

• Suppress nocturnal acid secretion by more than 90%.

تقلها
بنسبة 90%

• Suppress 24-hour acid secretion by 50-70%.

• Side effects : serious side effects

• CNS effects: headache, mental confusion.

عقب + كبير بالتي → عند الرجال
• Reversible gynecomastia and impotence.

• Interaction with drugs metabolized through hepatic cytochrome P-450 microsomal enzymes

Liver

بعد interaction مع أي drug يصعب metabolizing بال Liver و عشان هقول

نسيب انه يصير drug - drug interactions (لنا - تاخذ ا دوية مشوية) عاليه جدا.

اي شيء ينسهي ب Dine

اسم تجاري ← Domoclar ← عشان بيان لازم تحفظ ال اسم اعلميا.

HISTAMINE- RECEPTOR ANTAGONISTS (H2-Blockers)

CIMETIDINE

RANITIDINE

FAMOTIDINE

NIZATIDINE

استخدام ال P.B.I ستي كويي لاسباب:-

تقلل acid secretion 90% خلال ال ٤ أسابيع أكثر من غيرها ↑

• والتاسه يبي تستخدم P.B.I ماقصاح أهلاً يعلو Surgery بعدين خلد يبي مستخدمون / ٤ يتخ التساق منها.
• ونلاحظ انه ما يبي اي associated صا بين استخدامها والواحد يبي يبيده takers
• ال side effect لها مثليه كبراً (هوا)

PROTON PUMP INHIBITORS (PPIs)

- Suppress acid secretion by non-competitively and irreversibly inhibiting the H⁺ , K⁺- ATPase of the gastric parietal cells.
- Inhibit over 90% of 24-hour acid secretion.
- Increase secretion of gastrin usually 2-3 times the baseline with proliferation and growth of ECL cells.
- No carcinoid tumors were reported occurring in men due to PPIs.
- Heal 50% of DUSs by 2 weeks, 90% in 4 weeks, and almost all by 6-8 weeks.

معدل الشفاي 2
4
Weeks 6-8

PROTON PUMP INHIBITORS (PPIs)

الأسماء

Zole دosis

- Omeprazole: 10, 20 mg
- Lansoprazole: 15, 30 mg
- Pantoprazole: 20, 40 mg
- Rabeprazole: 10, 20 mg
- Esomeprazole: 20, 40 mg
- Tenatoprazole: 40 mg: longer duration of action



Eradication therapy for H.Pylori

- **In vivo, sensitive to the following agents:**
 - amoxicillin 🥲 كتبتهم فوق من قوقل
 - tetracyclin
 - clarithromycin
 - Metronidazole, tinidazole
 - bismuth
 - PPIs
- **Second line drugs:** Levofloxacin, gatifloxacin, rifabutin

بال نادرًا ما الجبىء الجراحة بعدما أعطى ال effective therapeutic agents

↓
PPIs خصوصًا ال

Surgery for
PUD

- Rare after the introduction of effective therapeutic agents except for complications.

لا تُقارن بدائتك

بمؤسس حماد

آلا خرين

Pariet esophagitis

Gastroesophageal Reflux Disease (GERD) REFLUX ESOPHAGITIS

- Backward movement of gastric contents into the esophagus causing heartburn (burning chest pain) resulting from recurrent mucosal injury, often worse at night, when lying supine, or after consumption of foods or drugs that diminish lower esophageal sphincter tone.
- Associated with transient relaxations of the weak or incompetent lower esophageal sphincter.

* ليس عيني weakness بال Lower esophageal sphincter في ليس ال H^+ جمع جمع
وليس عيني النهاي بمنطقة ال esophageal ← pariet esophagitis

↓ Normal cells
ليس عيني استبدال ال

Clinical Manifestations

حرقاة

➤ Heartburn:

- A. It is frequently severe, تزيد جدا كل
- B. occurring 30 to 60 minutes after eating. لف ساعة الساعة
- C. It often is made worse by bending and lying down انحناء
- D. is relieved by sitting upright. تخفيف
- E. Often, heartburn occurs during the night. يزيد أثناء النوم



➤ Belching

زياسلاكين (غثية)

« الناس يقولون انه عندنا angina »

➤ Chest pain (may be confused with angina).

1. is located in the epigastric or retrosternal area and
2. often radiates to the throat, shoulder, or back.



➤ Respiratory symptoms such as asthma (vagal-mediated bronchospasm), chronic cough, and laryngitis.

أزمة

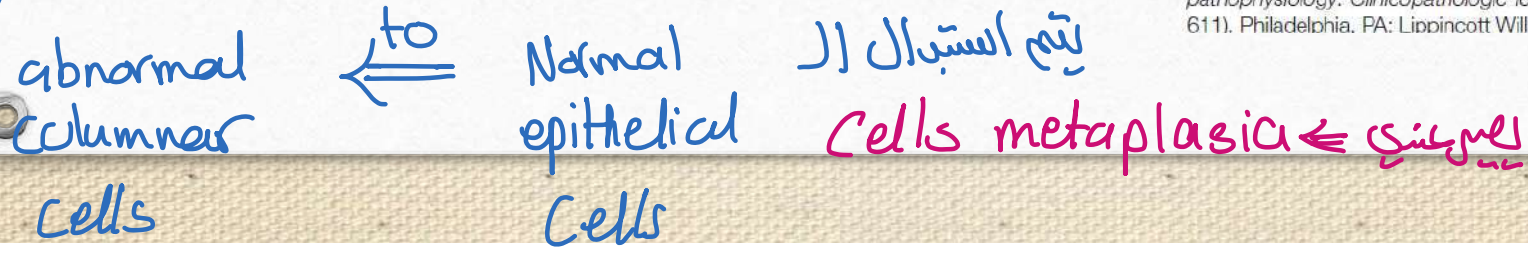
↑
التهاب

لا تؤذ أحد
 كن لطيفاً
 كن نافعاً
 كن رقيقاً

- Complications, such as strictures and *Barrett esophagus*.
- **Barrett esophagus** is characterized by a reparative process in which the **squamous mucosa that normally lines the esophagus gradually is replaced by** abnormal columnar epithelium resembling that in the stomach or intestines. It is associated with increased risk for the development of **esophageal adenocarcinoma**.



FIGURE 45.4 • The presence of the tan tongues of epithelium interdigitating with the more proximal squamous epithelium is typical of Barrett esophagus. (From Rubin R., Strayer D. S. (Eds.) (2012). *Rubin's pathophysiology: Clinicopathologic foundations of medicine* (6th ed., p. 611). Philadelphia, PA: Lippincott Williams & Wilkins.)



والاستبدال الى المتغيره من اجل يتحول الى Cancer

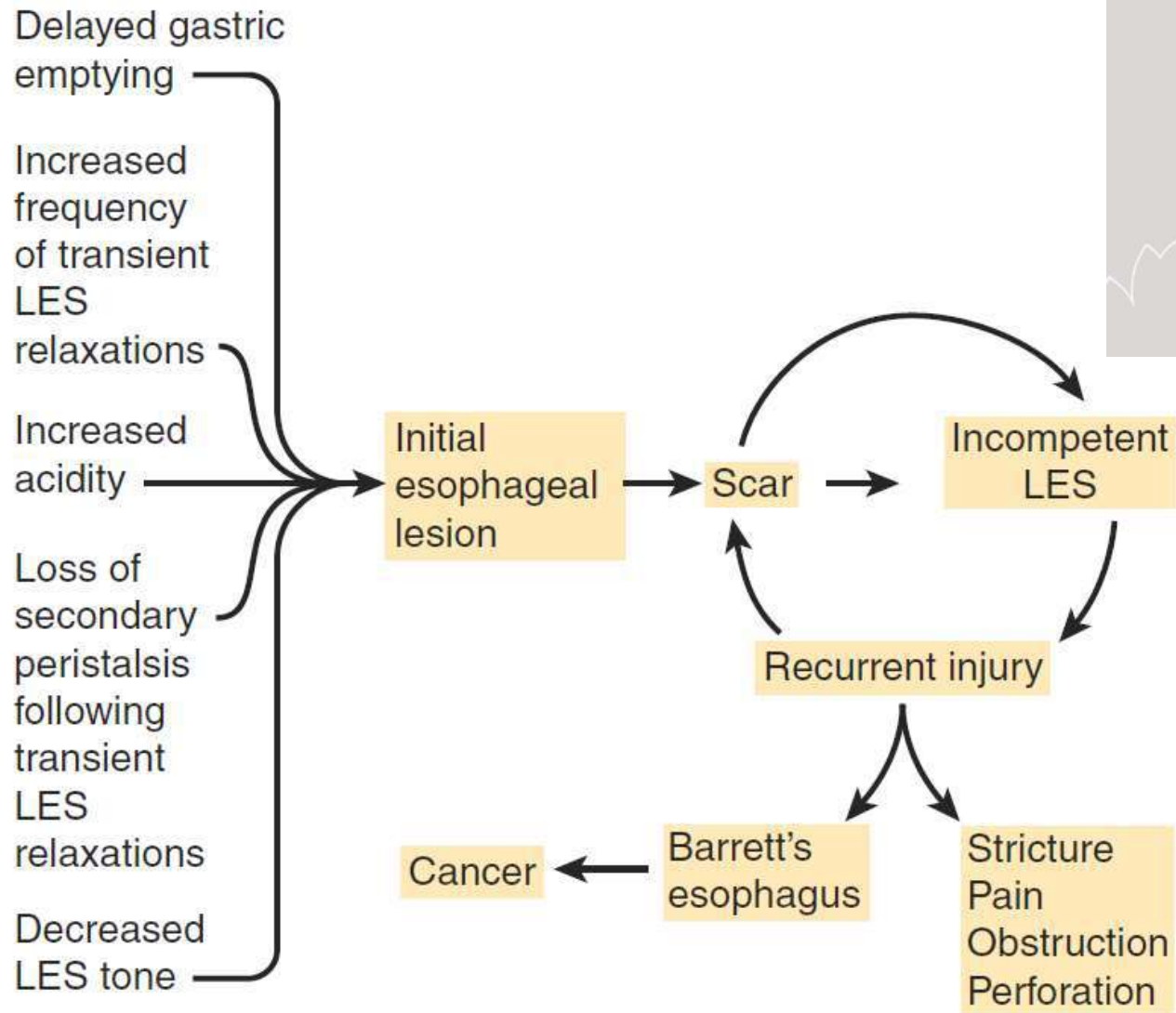


FIGURE 13-17 Pathophysiology of esophageal reflux disease.



Very weak

نركز على ما ليس بالأمن ← هم رح بي بالإمتحان (هي الأشياء التي تقلل ال pressure على L. esphincter ← تليه

وهذا لا يعني انه يلى
بالإ لفر غير مهم !

TABLE 13-5 Modulators of lower esophageal sphincter pressure.

	Increase Pressure	Decrease Pressure
Hormones	Gastrin Motilin Substance P	Secretin Cholecystokinin Somatostatin Vasoactive intestinal peptide (VIP) Progesterone
Neural agents	α-adrenergic agonists β-adrenergic antagonists Cholinergic agonists	β-adrenergic agonists α-adrenergic antagonists Anticholinergic agents
Foods	Protein meals	Fat Chocolate Peppermint
Other	Histamine Antacids Metoclopramide	Theophylline Prostaglandins E ₂ , I ₂ Serotonin

Pathophysiology of Disease: An Introduction to Clinical Medicine Seventh Edition, 2010

Conservative treatment

نبعد عن الأكل يلى
يسببه حركة ويبعد
عن الأكل يلى فيه
لته كلابته و سائر رact
و اللد حين سنكش ال كسواع
و بوجعت الحول و الوجبات
الكبيرة

medications

antacids

H₂ receptor blockers

PPIs

العلاج

Treatment



- The treatment of gastroesophageal reflux usually focuses on **conservative measures**.
- **Avoidance of positions and conditions** that increase gastric reflux.
- **Avoidance of large meals and foods** that reduce lower esophageal sphincter tone (e.g., caffeine, fats, chocolate), **alcohol, and smoking**.

Medication:

- **Antacids** or a combination of antacids and alginic acid. Alginic acid produces foam when it comes in contact with gastric acid; if reflux occurs, the foam rather than acid rises into the esophagus.
- **Histamine-2 receptor (H2)-blocking antagonists**.
- **Proton pump inhibitors**.

- **Surgical treatment may be indicated in some people**

احتياج للجراحة في الGERD

ولكن بار peptic ما يحتاج
كعسل

ليش ؟ لأنه الGERD ممكن يتحول لـ Cancer نسبة عالية (فالأرجح عليه)

((نسبتہ اعلیٰ عند الذکور))

Cancer of stomach

One of the leading causes of death in the united states.

It exhibits a male to female ratio of 2:1.

Risk factors for stomach cancer include:

- Genetic predisposition. *family history*
- Carcinogens in the diet (nitroso compounds found in smoked and preserved food). *انعداد المعالجة منها مواد مسرطنة.*
- Autoimmune gastritis. *الناس يبي عندهم chronic gastritis خصوصاً يبي كان نسبتها autoimmune disease.*
- Gastric adenoma and polyps. *(ورم حميد أو أليان) نسبة تويهاك Cancer كثير خالية ولازم تنشال نشو ما كان مكانها*
- Chronic infection by H.pylori act as a cofactor for some carcinomas. *الناس يبي ما تتابع بشكل صحيح*

(ما أخذ eradication therapy بشكل صحيح أو سليم)

في مملكتي يؤدي إلى حدوث stomach cancer

*(زبي الانيميا Pernicious anemia)
ذاتها ما تبي*

«ع الأَعْلَى العَلَامَات مَا تَطْهَى إِلَّا بَعْدَ غَيْرَةِ لَوِيْلَةَ» إِذَا ظَهَرَتْ



Cancer of stomach

- Unfortunately, stomach cancers often are asymptomatic until late and early detection is usually difficult.

Symptoms include:

- Indigestion. سَوِي الْمَهِيْمِ
- Anorexia nervosa. يَسْتَفْرِغُ لَهَا يَعْصَبُ
- Weight loss. خَفَدَانِ وَزْنِ
- Epigastric pain. وَجِجٌ فِي رَأْسِ الْمَعِدَةِ
- Vomiting. اسْتِزْجَاعٌ
- Abdominal mass. يَحْسُ فِي كِتْمَلَةٍ وَ ثِقَلٌ بِمَعِدَةٍ وَ كَأَنَّهَا نَفْعَةٌ (مِثْلُ نَفْعَةٍ عَادِيَةٍ)

بِطَوْرَةٍ عَاوِزَةٍ
تَحَقُّقٌ
طَامِعَةٌ وَاحِدَةٌ
مِنْ
طَمُوحَاتِهَا



بعد ما يعملو تنظير
يعطوهم حقنة شرجية ملونة
تبع بتبع التصوير الـ x-ray
و CT scan تبع ياخذ عينة

Cancer of stomach

بعد ما يعملو تنظير يعطوهم
حقنة شرجية ملونة تبع يتبع تصوير الـ x-ray

□ Diagnosis is accomplished by: *Cancer* تبع ياخذ عينة للتأكد من الـ *Cancer*
في أي مرحلة وبالزها ولان هنشششان يحدد نوع العلاج
اللي اعطوه المريض .

- Barium x-ray studies.
- Endoscopy and computed tomography (CT)-scan.
- Biopsy and cytologic studies of the gastric secretions.

□ Treatment:

- Radical subtotal gastrectomy is the treatment of choice.
- Radiation and chemotherapy may be used for palliative purposes or to control the metastatic spread of the disease.

أستح أو كيميائي
إذا طازب

or surgery

radical subtotal gastrectomy
جزء
جزء

مهلن لتيسلو ٢ ارباه
أكثر من
جزء

Irritable bowel syndrome

التهاب متكفن

متلازمة القولون المتهيج

هو نوع من أنواع الinflammation \Leftarrow يعمل على تحفيز إفراز الinflammatory mediators

لأنهم يعرفون أنه عندهم IBS \Leftarrow تتغير الfrequency of stooling تبعهم الmortality للتهاب للأمعاء

حيث يزداد عندهم بول كل 3 أيام يصير كل يوم أو باليوم أكثر من مرة وليس عندهم إما

Constipation أو diarrhea و الform of stool ... وما يرتاح إلا بعد الdefecation (الإخراج)

وهي الأعراض لازم تستمر لمدة 4 أسابيع ... لأنه في الناس نصير منهم هاي الأعراض بشكل مؤقت

temporary لأنه غير آكله معينة تعرف الstress ...

هو Autoimmune disease \Leftarrow الجهاز المناعي يهاجم نفسه ... عشان هيك يأخذ بعض الأدوية

immunosuppressant

متبعا للجهاز المناعي

* هذا الناس يصير عندهم disnegulation of para/sympathetic

يطلق يستغل يصير أجهلاً أو para تزيد (أكثر عالية) في يصير عندهم diarrhea
وال motility تآكل أو bowel تزيد بسبب أو stress في مباشرة يصير
عندهم diarrhea ...

«إلا نأش أكثر عرضة من الذكر»



Intestinal disorders

Irritable bowel syndrome

- It is a persistent or recurrent symptom of abdominal pain, altered bowel function, and varying complaints of flatulence, bloating, nausea and anorexia, constipation or diarrhea, and anxiety or depression.
 ألم مستمر أو متكرر *إمساك أو إسهال أو إمساك* *↑* *معص* *غثيان* *تفاح*
- The pain is relieved by defecation and associated with a change in consistency or frequency of stools.
 لأنه يشبه متاع (اكتئاب) *الألم يروح بعد التبرز* *defecation*
- The pain is usually intermittent cramping in the lower abdomen. It does not interfere with sleep.
- It results from dysregulation of intestinal motor and sensory function modulated by CNS. Motility is increased as a response to stress.
- Women are more affected compared to men.

Diagnosis:

- Continuous or recurrent symptoms of at least 12 weeks duration with two of three accompanying features: relief by defecation, onset is associated with a change in bowel frequency, and associated with a change in form of stool.

change of

- History of lactose intolerance should be considered.
- Weight loss, anemia, fever, occult blood in the stool or nighttime symptoms, or malabsorption increases the likelihood of organic disease (any disease where observable measurable process such as inflammation and tissue damage).

الأطفال يلم ما يرتاحو إلا لنوع الكليب الألبان Lactose
هذول الأطفال يكون عندهم IBS و أعلن أسباه عائلية
الكل مع المدة قليل وممكن لا يعرف عندهم malabsorption
لنوع اختصها ، weight loss ، فقدان للعوز ، cramps +
مشترات بالغ + يحس طاله مشفقار بناع
diarrhea مولية اتصال
genetic

Treatment

□ No special diet is indicated but adequate fiber intake is recommended.

يبدو على
سكر ~~سكر~~
الدهون ~~الدهون~~
البروتينات ✓
الليبيدات ✓ → يكثر

□ Avoidance of offending food such as fatty and gas-producing foods, and alcohol. Caffeine-containing beverages could be beneficial.

□ Pharmacological therapy includes antispasmodic and anticholinergic drugs.

← ضد التشنج
لأنه يبري أو يقلل التشنج

yes, it's you! ♡♡
you are very precious
so please take care
of yourself !!

نوعين كثير صهاق بالامتحان :-

يتشاركوا فانهم نوع من ال inflammation
وتفرزوا ال inflammatory mediators .

• ممكن يارود ، سييامش واضح
لكن في الهم اختلافات :-

Inflammatory Bowel Disease

➤ These include:

- Ulcerative colitis: nonspecific inflammatory bowel disease of unknown etiology that affects the mucosa of the colon and rectum. جيداً في
- Crohn's disease: nonspecific inflammatory bowel disease that may affect any segment of the GIT. جيداً في
- Indeterminate colitis: 15% of patients with IBD are impossible to differentiate. ← مش مهم

Crohn's disease and ulcerative colitis share:

- ✓ Inflammation of the bowel.
- ✓ Lack of confirming evidence of the proven causative agent.
- ✓ Pattern of familial occurrence.
- ✓ Accompanied by systemic manifestation.
- ✓ Crohn's can affect any area of GIT from the esophagus to the anus while ulcerative colitis affects the colon and rectum.
- ✓ In Crohn's, the inflammation is often transmural but ulcerative colitis is typically restricted to the mucosa.

محدود في الطبقة
mucosa

Layers
Gi
على كامل ال
تأخذ ال

مقارنة

Crohn's disease

Clinical manifestation

- They both result from the activation of inflammatory cells with the elaboration of inflammatory mediators that cause nonspecific tissue damage.
- They characterize by remission and exacerbations of diarrhea, fecal urgency, and weight loss and it may lead to intestinal obstruction as a complication.

”يعالجونها بأدوية مختلفة من الجسم“

- Systemic manifestations include axial arthritis, inflammation of the eye, skin lesions. Inflammation of the mucus membrane of the mouth (stomatitis), blood disorders (anemia and hypercoagulability) and inflammation of the bile duct. In children, it causes growth retardation.

توقف عملية النمو

مفیش وقت للأنهيار
ذاكر وأنت بتعيط.



By:Nada Ali
FB:Nada a designs

Crohn's disease Treatment

- Treatments focus on terminating inflammation, promoting healing, maintaining adequate nutrition, and preventing complications. *minerals & proteins & Vitamins & fibers أكل منه للحاج زيدهم*
- Nutritious diet rich in calories, vitamins, and proteins is recommended, fat is better to be avoided.
- Medical therapy included:
 - Corticosteroids (suppress acute clinical symptoms). → *منبه للinflammation وال immunity*
 - antibiotics *أنتي*
 - Metronidazole (treats bacterial overgrowth in the intestine). *بدا كان السبي*
 - Immunosuppressants (azathioprine, 6-mercaptopurine, methotrexate and cyclosporine).
 - Monoclonal antibodies (anti-TNF agents) for severe disease. (Etanercept, adalimumab, infliximab). *anti tumor necrosis factor*

Ulcerative colitis

Risk factors

- **Age:** commonly less than 30.
- **Race or ethnicity:** white is at higher risk.
- **Genetic.** *يعتبر عند النساء أكثر من الرجال مضمونها يلاي تأخر*
- **Diet (fatty diet) or oral contraceptives** increase the risk of the disease.

خبي ال feeling
على جنب
ورکز على
ال Goals

Ulcerative colitis Clinical manifestation

- Marked by attacks of diarrhea that may persist for days, weeks, or months and then subside, diarrhea usually with blood. اسهال مع دم
- Anorexia, weakness, and fatigue. تعب عام قناتنا بالشهية weight loss + Vomiting
- In severe disease, fever, anemia, hypovolemia and hypoalbuminemia are common. Shock
- In children, failure to growth
- Cancer of the colon is a common complication of ulcerative colitis.

Crohn's disease أكثر نسبة انه يتحول لى Cancer مقارنة مع

Ulcerative colitis

Treatment

Fiber & proteins ✓

Lact & sugar & salt X

- ❑ Avoid caffeine, lactose, and gas-forming food.
- ❑ Doctor may recommend high protein, a high-calorie eating plan that is low in fiber.
- ❑ Drugs including corticosteroids and TNF inhibitors can be used.
علاج ↑
تهدئة الجهاز الهضمي ↑
- ❑ Unlike Crohn's disease, nicotine has shown clinical and histological improvement.
عكس Crohn's فهو يقلل من الـ risk تاج لا ulcerative colitis و يمكن استخدامه كعلاج
- ❑ Unlike Crohn's disease, UC responds to treatment by probiotic therapy.
- ❑ Iron is given to treat anemia resulting from intestinal bleeding.
كأنم نعطيهم حديدشان الـ anemia →
- ❑ Unlike Crohn's, UC can be cured by surgical removal of the colon.

عكس Crohn's يمكن علاجه عن طريق إزالة القولون (Colon)



سرطان القولون والمستقيم

Colorectal carcinoma

- Colorectal cancer affects about 1 million persons worldwide.
- It peaks at 60-70 years of age in patients with:
 - ⇒ Family history of cancer. *Crohn's* لأننا أكثر منه في ال Crohn's
 - Persons with Crohn's disease or ulcerative colitis. أليان
 - Persons with familial adenomatous polyps of the colon.
- Diet including fat (increase bile salt synthesis) and refined sugar are harmful, while fiber intake (increases stool bulk and removes carcinogens), and vitamins such as vitamin A, C, and E are of great benefit in neutralizing carcinogens. (معالجة لأي معاد مسببة)
- Aspirin has shown some benefit in prevention by inhibiting COX-2 which is overexpressed in colorectal cancer.

”يجب إيقاف Aspirin“

fat X
Sugar X
Salt X
Fibers ✓
proteins ✓
Vitamins ✓

Colorectal carcinoma Clinical manifestation

Colon cancer may present for a long period of time without symptoms.

Bleeding is the symptom that causes the person to seek medical care.

Change in bowel habits, diarrhea or constipation, sense of urgency, or incomplete emptying of the bowel.

Pain usually is a late symptom.

• التخمير يليه معه اسلان بالعدون لما يدخل كالم الحام ويطلع جيس حاله لساه كليل بس هو مكلل ... ولكن بسبب وجود الازم وال pain .

• الكسوف هو كثير منتشر بالاردن ولكن بشرط اللويس انه ال progression تايه (التطور)

يعيش بسنتين وثلاث وبعده مش منتشر وهو ال stage الأولى . ف لازم تنصع الناس الكبار بالقرى عندهم انه اذا اصابه اسهال واسهال و bleeding أو spotting لازم يفحصو ويقيم الشفاء بشكل سريع .

Colorectal carcinoma

Diagnosis and treatment

□ Diagnosis: زبي ما أخذنا قبل ↑

- It can be detected by barium enema or colonoscopy, CT scan, pelvic magnetic resonance imaging (MRI), and ultrasonography can also be used.

□ Treatment:

- The only recognized treatment is surgical removal.

- Preoperative radiation therapy may be used.

- Postoperative adjuvant chemotherapy is used. قبل العملية بخطوة مع adjuvant

هو chemotherapy (كيمياء) يأخذه في وقت قبل جمع tumor في وقت قبل
العلاجات أثناء العملية .

” 8 أسئلة في الفايصل “

Thank You

THE VIEW FROM THE OTHER SIDE IS AMAZING!



إِنْ شَاءَ اللهُ كُنْتُ كَتَبْتُ
كُلَّ شَيْءٍ حِكْمَتَهُ الدُّرُورَةَ وَبِالتَّوْفِيقِ
لِلْجَمِيعِ . . .

لا تنسوني ووالدي من حاله دعائكم

ph. areej sauwaz