大腸直腸癌

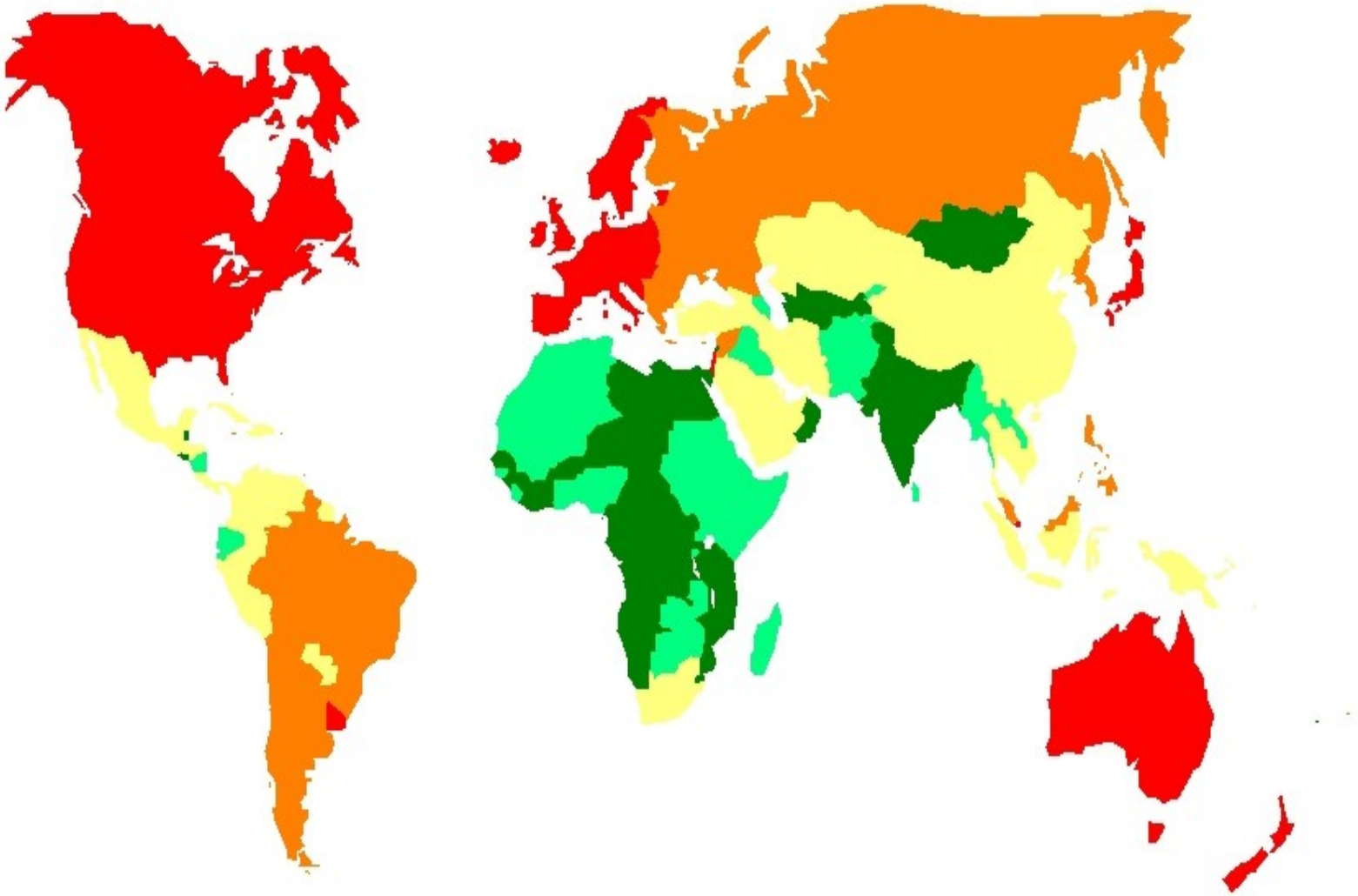
江國彬　醫師

香山衛生所

前　言

- 大腸直腸癌專指大腸的腺癌
- 盛行於歐美是癌症發生率第二位
- 癌症發生率第二位及死亡率第三位
- 男略多於女
- 好發年齡 **60—70** 歲
- 每年新增約 **8000** 例 死亡超過 **3000** 人
- 患者年紀越輕預後越差

Incidence of Colon and rectum cancer: ASR (World)-Male (All ages)



< 4.9 < 7.7 < 13.6 < 30.1 < 58.5

GLOBOCAN 2002

民國92年與91年國人十大癌症發生率比較

原發部位	92年			91年	92年與91年年齡標準化發生率增減（%）
	個案數	粗發生率	年齡標準化發生率	年齡標準化發生率	
女性乳房	5,325	48.02(1)	42.01	39.22	7.11%
肝及肝內膽管	9,404	41.60	38.33	37.14	3.20%
結腸及直腸	8,238	36.44	33.07	32.00	3.34%
肺、支氣管及氣管	7,415	32.80	29.52	29.12	1.37%
口腔、口咽及下咽	4,435	19.62	17.50	15.08	16.05%
攝護腺	2,237	19.43(2)	17.22	17.37	-0.86%
子宮頸	2,061	18.59(1)	16.37	17.20	-4.83%
胃	3,534	15.63	13.98	15.10	-7.42%
膀胱	1,858	8.22	7.44	6.85	8.61%
皮膚	1,743	7.71	6.95	8.30	-16.27%
其他部位	16,292	-	-	-	-
總計	**62,542**	**276.68**	**250.77**	**243.82**	**2.85%**

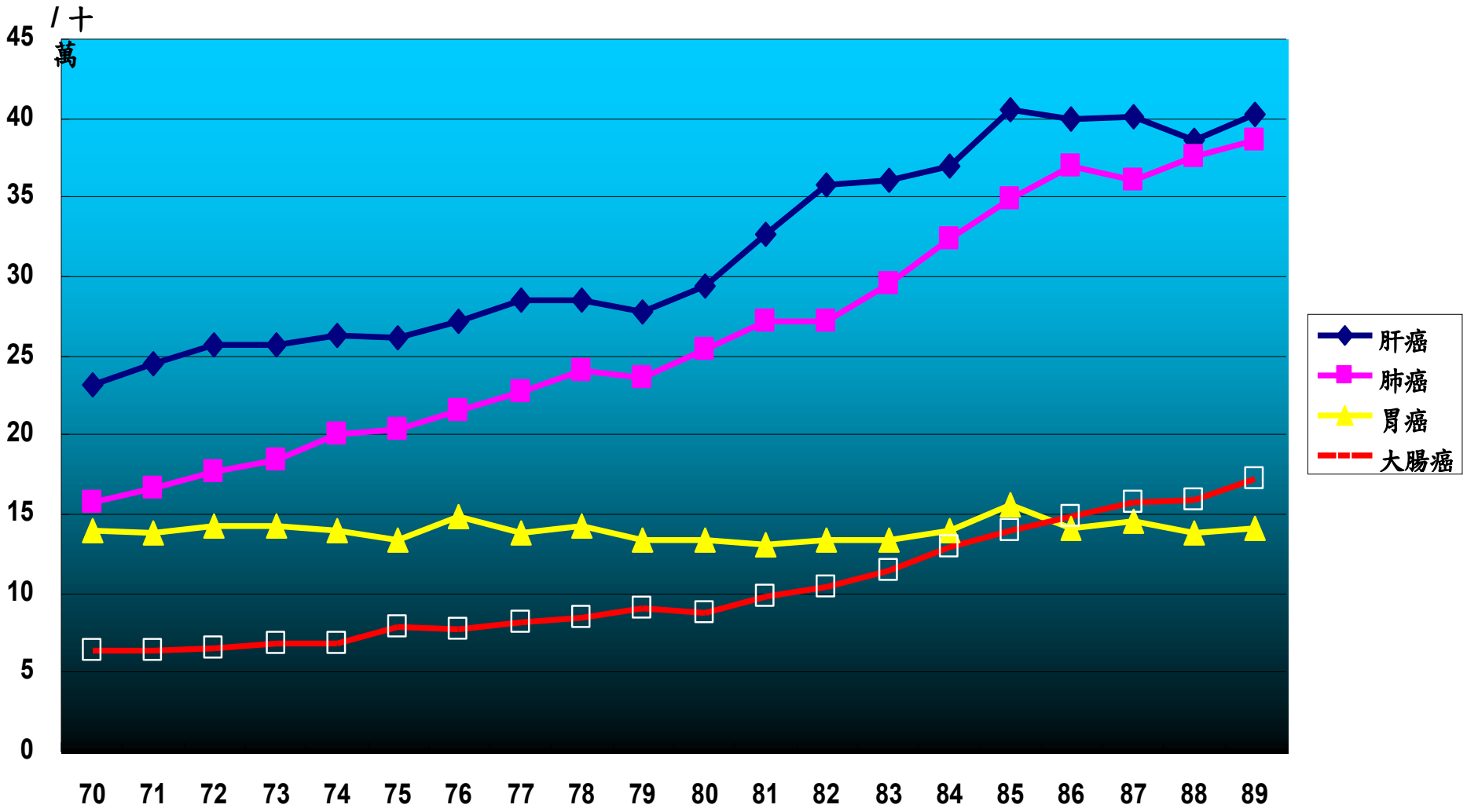
民國92年與91年男性十大癌症發生率比較

原發部位	92年			91年	92年與91年年齡標準化發生率增減（%）
	個案數	粗發生率	年齡標準化發生率	年齡標準化發生率	
肝及肝內膽管	6,753	58.64	54.88	53.29	2.98%
肺、支氣管及氣管	5,025	43.64	39.39	38.31	2.82%
結腸及直腸	4,677	40.62	37.29	36.22	2.95%
口腔、口咽及下咽	4,040	35.08	31.81	27.21	16.91%
胃	2,308	20.04	17.98	19.64	-8.45%
攝護腺	2,237	19.43	17.22	17.37	-0.86%
膀胱	1,318	11.45	10.48	9.73	7.71%
食道	1,258	10.92	10.04	9.46	6.13%
鼻咽	1,157	10.05	9.01	8.19	10.01%
皮膚	960	8.34	7.62	9.11	-16.36%
其他部位	6,552	-	-	-	-
總計	**36,285**	**315.11**	**288.98**	**280.50**	**3.02%**

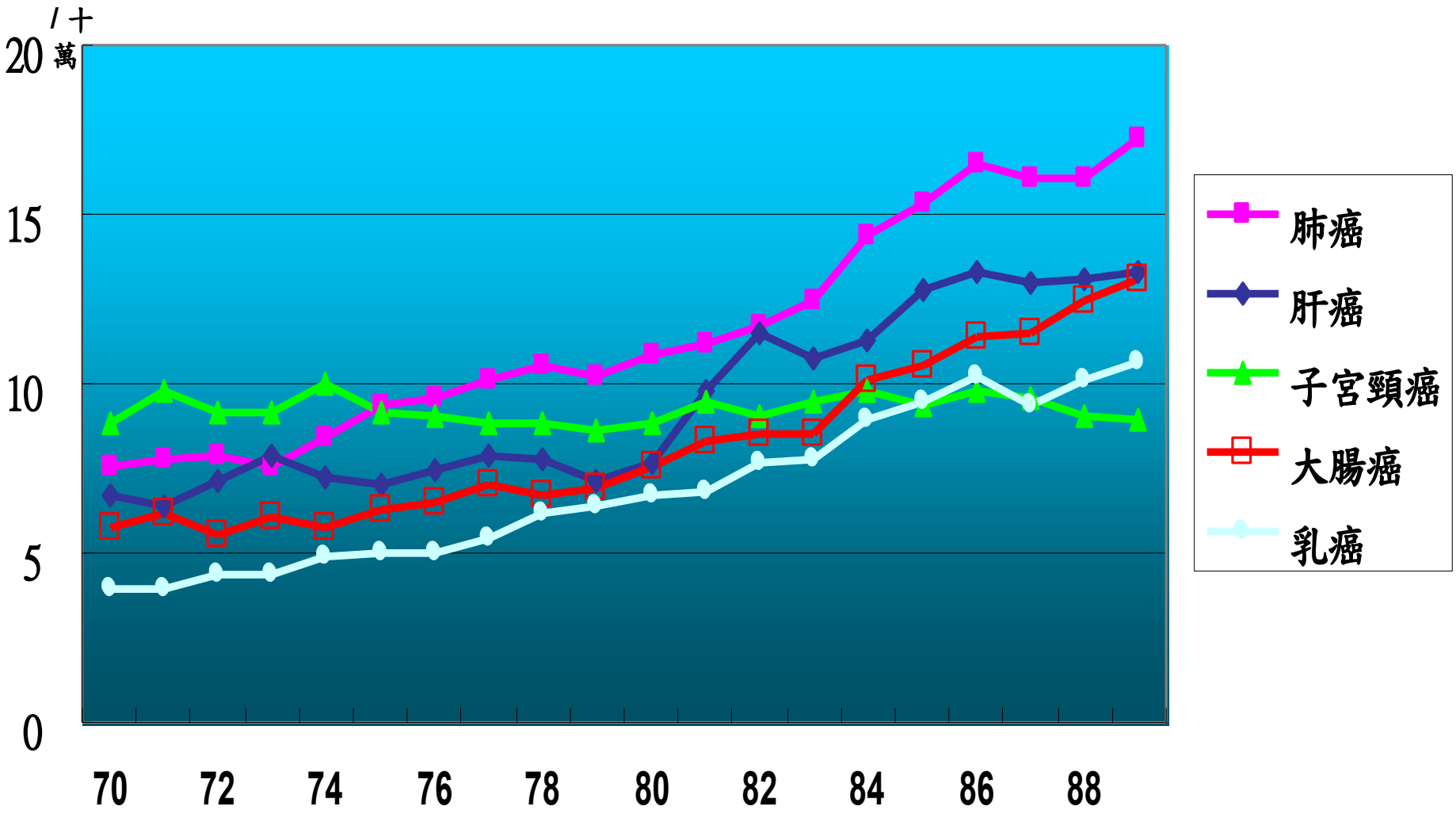
民國92年與91年女性十大癌症發生率比較

原發部位	92年			91年	92年與91年年齡標準化發生率增減（%）
	個案數	粗發生率	年齡標準化發生率	年齡標準化發生率	
女性乳房	5,325	48.02	42.01	39.22	7.11%
結腸及直腸	3,561	32.11	28.81	27.71	3.97%
肝及肝內膽管	2,651	23.91	21.87	20.98	4.24%
肺、支氣管及氣管	2,390	21.55	19.35	19.59	-1.23%
子宮頸	2,061	18.59	16.37	17.20	-4.83%
胃	1,226	11.06	9.86	10.40	-5.19%
甲狀腺	975	8.79	7.82	8.11	-3.58%
卵巢、輸卵管及寬韌帶	833	7.51	6.67	6.01	10.98%
子宮體	793	7.15	6.32	6.05	4.46%
皮膚	783	7.06	6.29	7.48	-15.91%
其他部位	5,659	-	-	-	-
總計	**26,257**	**236.77**	**212.02**	**206.32**	**2.76%**

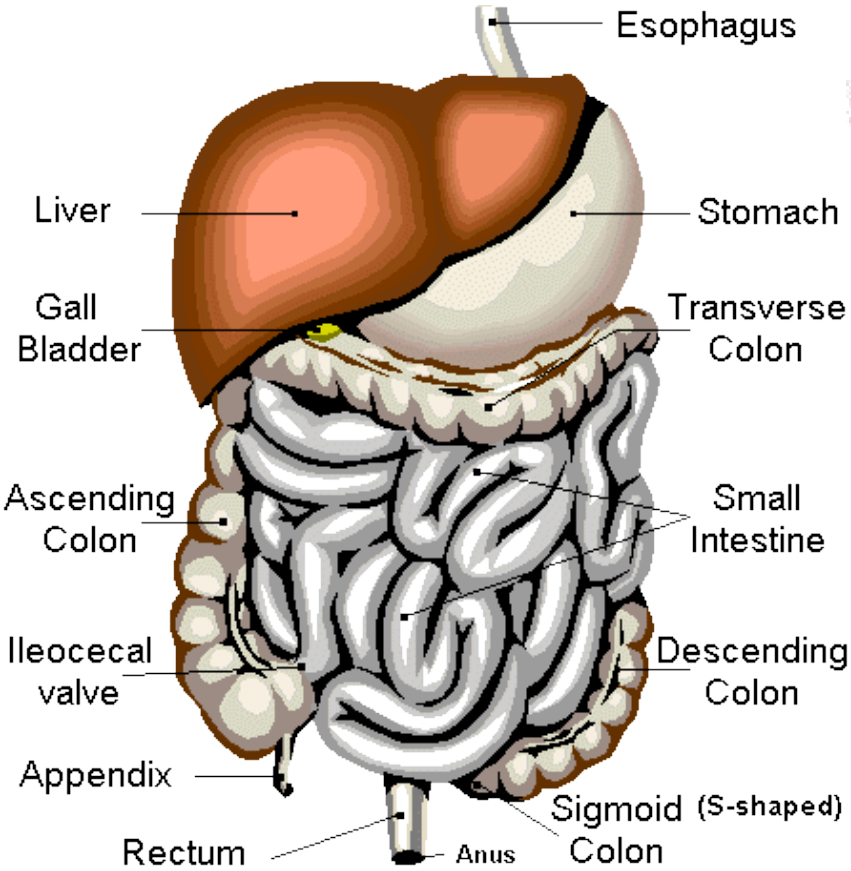
臺灣地區男性癌症死亡率

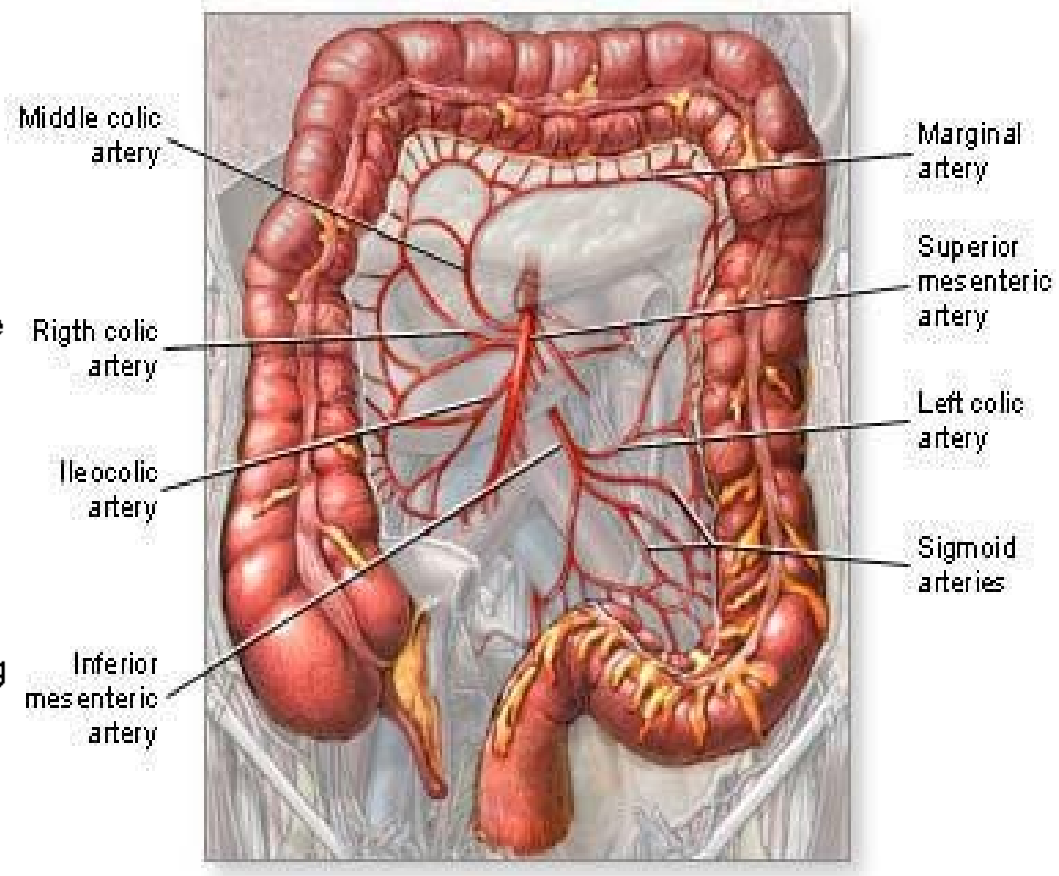


臺灣地區女性癌症死亡率

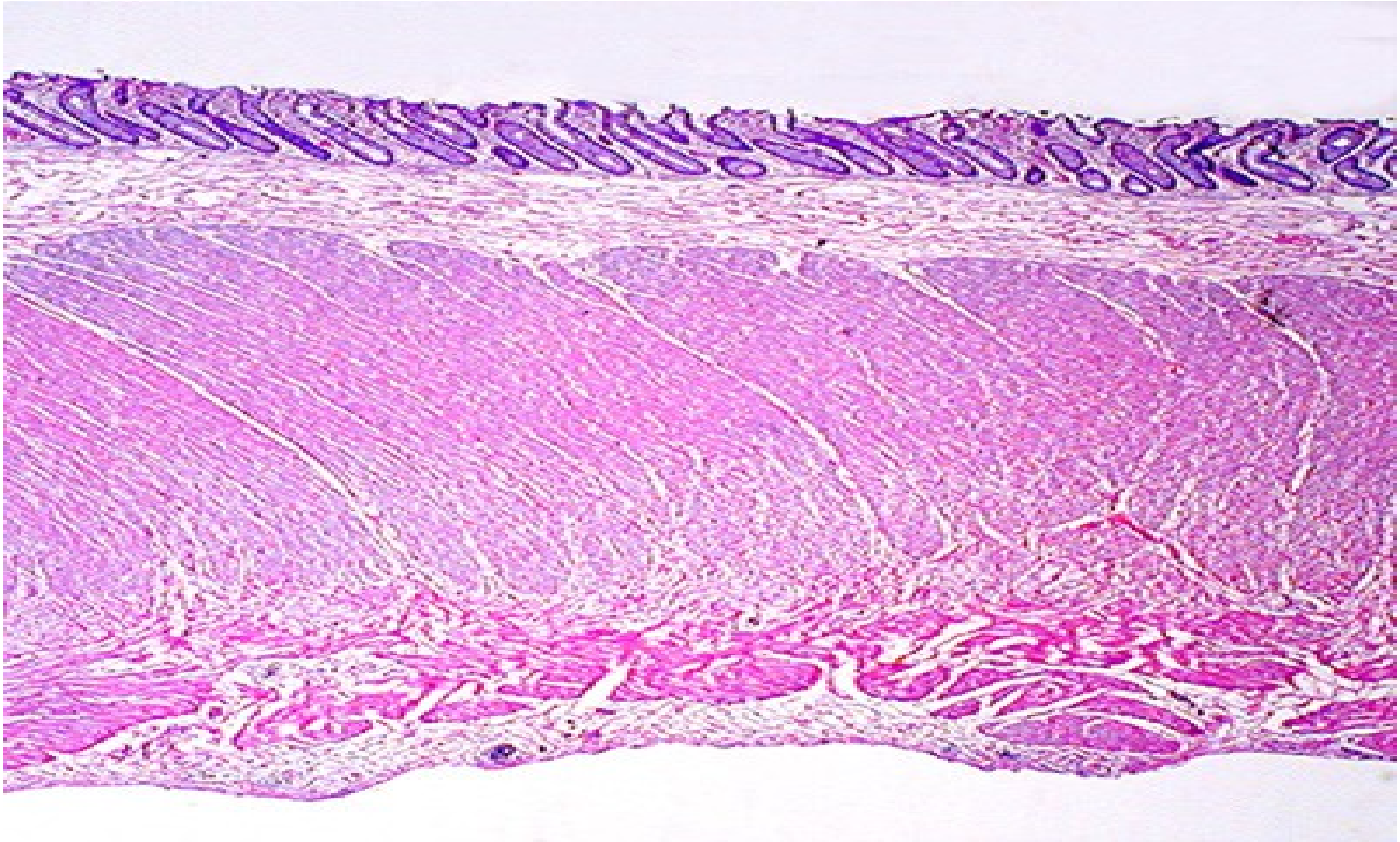


大腸的解剖


Esophagus
Liver
Stomach
Gall Bladder
Transverse Colon
Ascending Colon
Small Intestine
Ileocecal valve
Descending Colon
Appendix
Sigmoid (S-shaped) Colon
Rectum
Anus

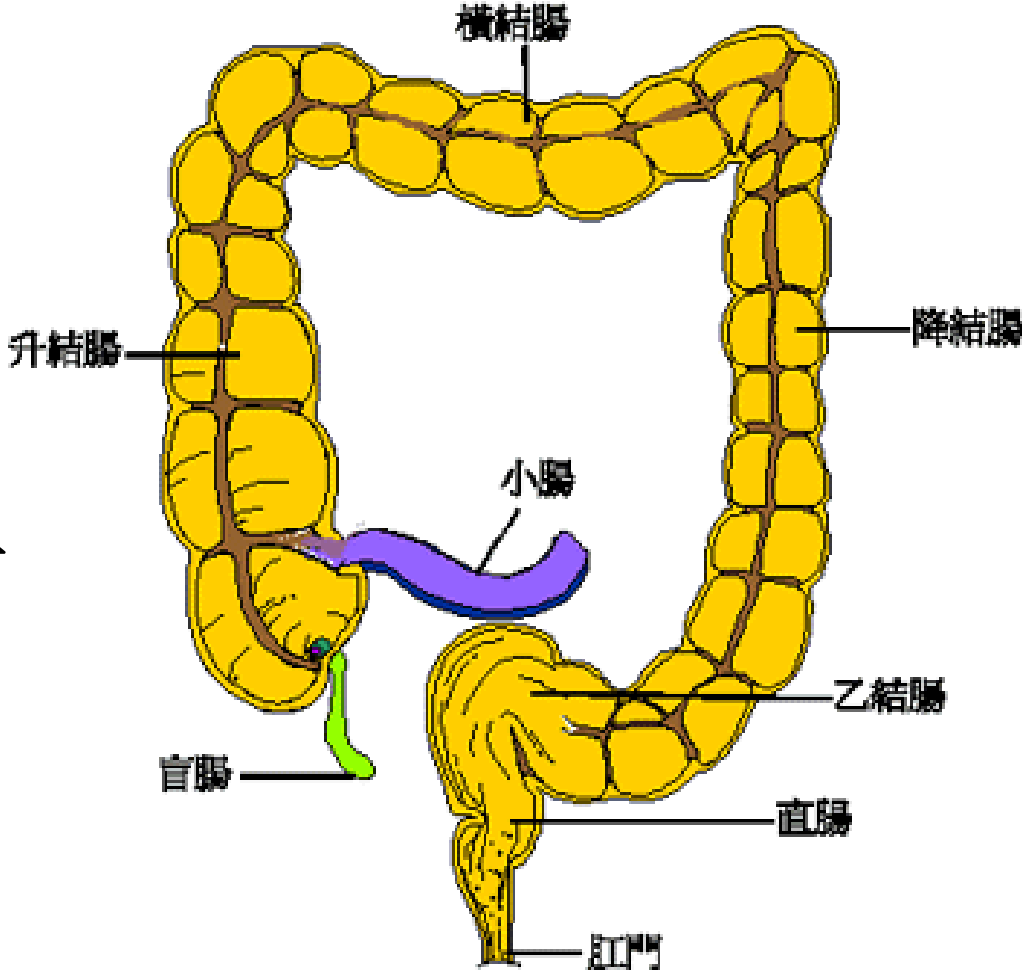

Middle colic artery
Marginal artery
Superior mesenteric artery
Rigth colic artery
Left colic artery
Ileocolic artery
Sigmoid arteries
Inferior mesenteric artery

大腸的組織



大腸的生理

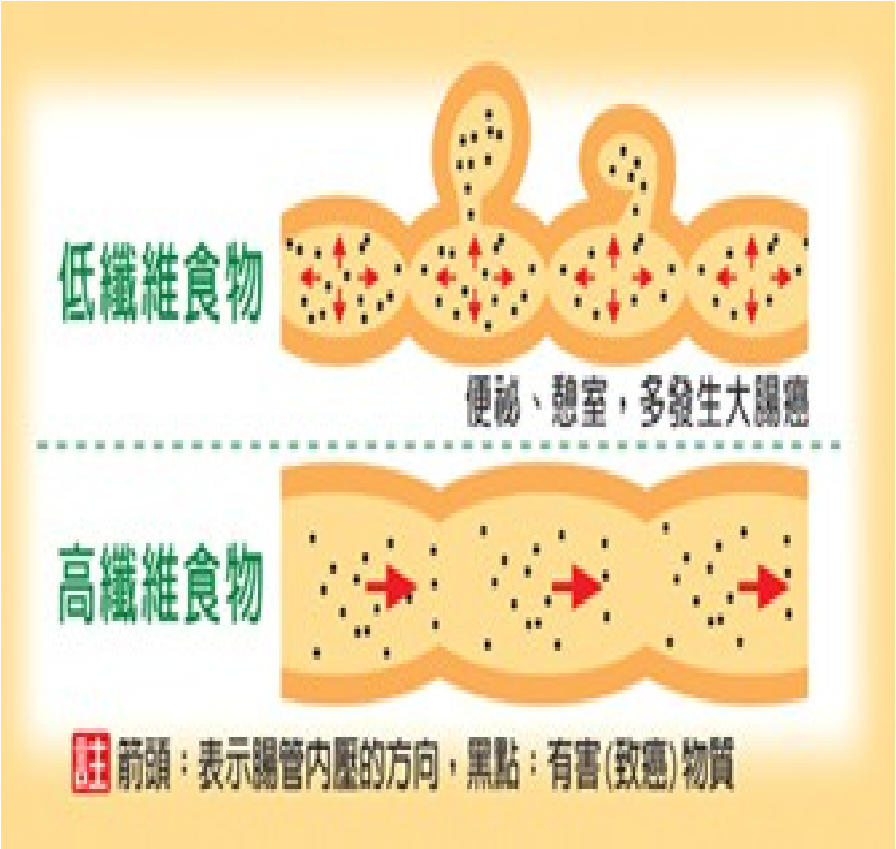
- 重吸收水分
- 重吸收電解質
- 分泌黏液
- 分泌炭酸根離子
- 儲存糞便

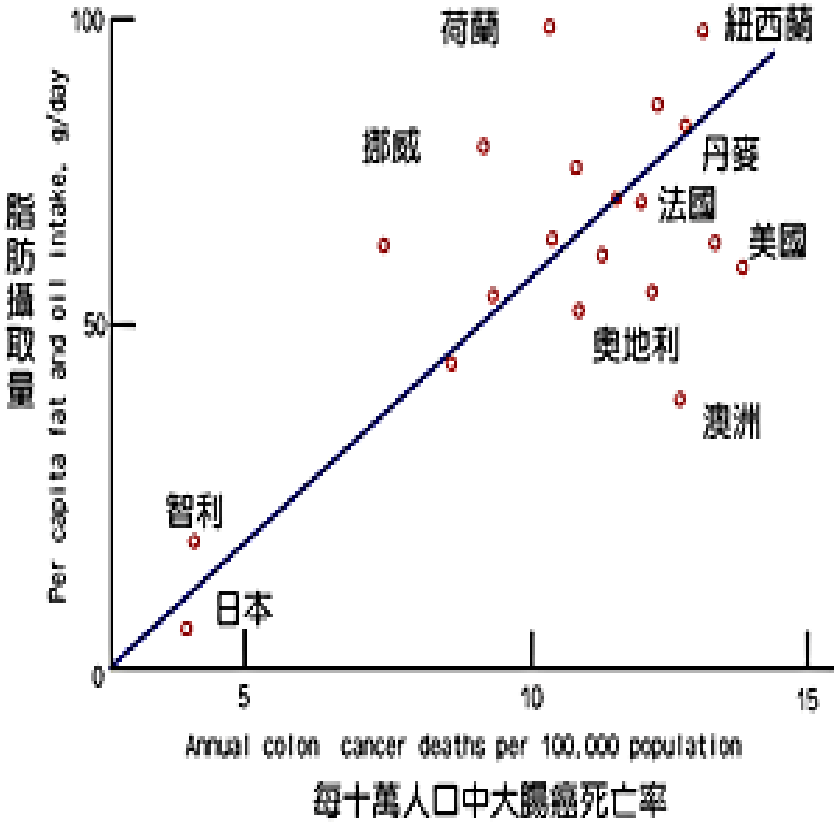


大腸癌的病因

- 遺傳
- 環境—美國日本人
- 宗教—摩門教
- 大腸慢性炎症
- 乳癌生殖腺癌
- 膽囊切除
- 高脂肪高膽固醇
- 紅肉—牛肉
- 啤酒
- 抗氧化：維生素ACE
- 硒：大蒜、鮪魚
- 血鈣
- 纖維素

大腸癌的病因


低纖維食物
便祕、憩室，多發生大腸癌
高纖維食物
註 箭頭：表示腸管內壓的方向，黑點：有害(致癌)物質


Per capita fat and oil intake, g/day
脂肪攝取量
100
50
0
5
10
15
Annual colon cancer deaths per 100,000 population
每十萬人口中大腸癌死亡率
荷蘭
紐西蘭
挪威
丹麥
法國
美國
奧地利
澳洲
智利
日本

高遺傳性大腸癌

- Famial polyposis coli FAP(超過 100 個息肉)
- 正染色體顯性遺傳
- 子女有一半機會染病
- 15 歲開始長息肉
- 45 歲前 90% 癌化
- 家人青春期後篩檢
- 手術的選擇

- HNPCC
- 正染色體顯性遺傳
- 子女有一半機會染病
- 家族至少三位染病且至少二位為一等親
- 至少連續二代罹病
- 至少一位小於 50 歲
- Lynch type I typeII

大腸癌的症狀

- 肛門出血
- 裏急後重
- 排泄黏液
- 排便習慣改變
- 糞便形狀改變
- 腹瀉或便秘
- 貧血
- 腹痛或腹脹
- 腹部腫塊
- 黃膽
- 腹水
- 呼吸困難

大腸癌的診斷

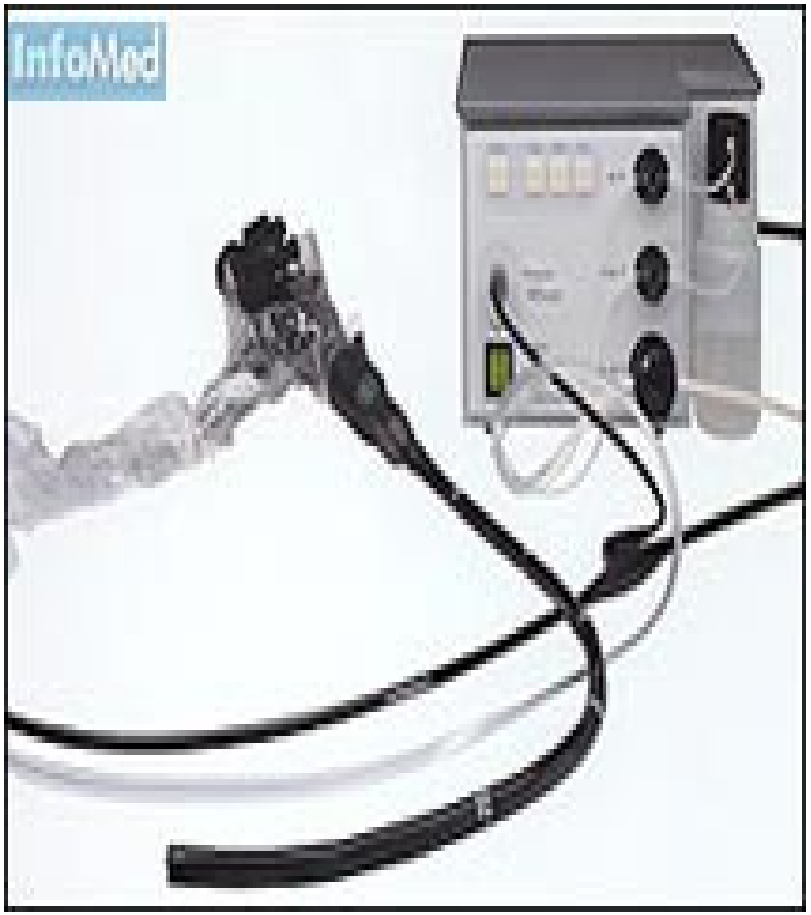
- 完整病史
- 理學檢查
- 糞便潛血檢查
- 癌胚胎抗原
- 肛門指診
- 乙狀結腸鏡
- 大腸鋇劑攝影
- 大腸鏡 (無痛)
- X- 光檢查
- 腹部超音波
- 電腦斷層
- 核磁共振
- 虛擬大腸鏡

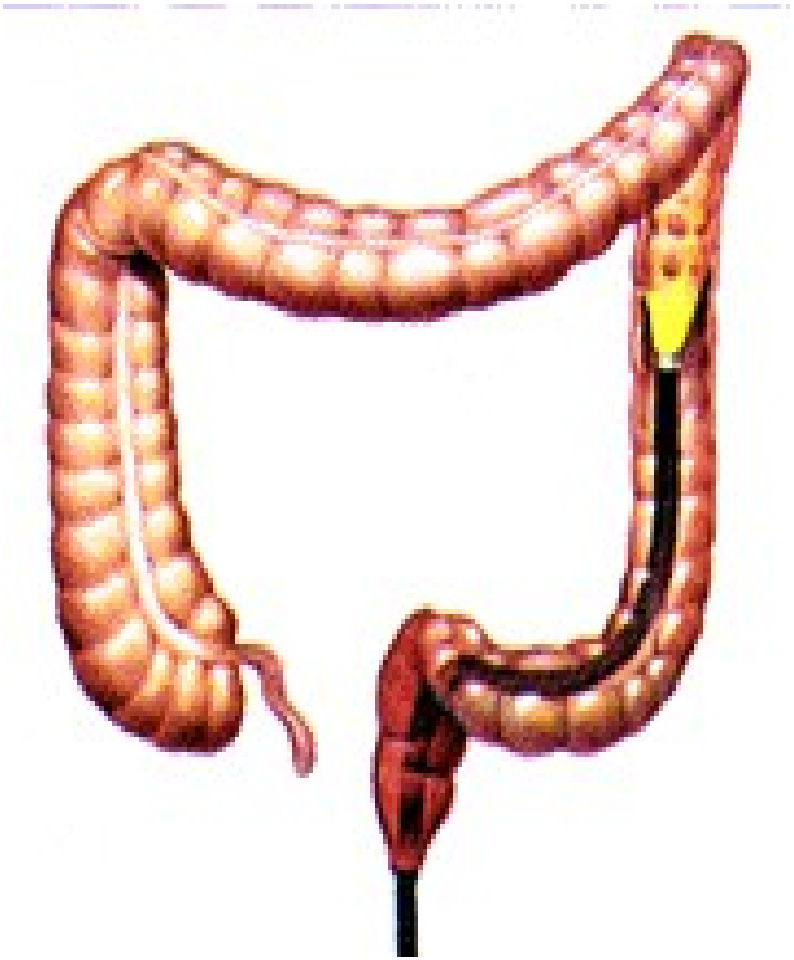
癌胚胎抗原的角色

- **Carcinoembryonic antigen(CEA)**
- **1965 Dr.Gold** 首先於胚胎及腫瘤內發現
- 乳癌、胰臟癌、肺癌、肝病、腎病、長期抽煙者均會升高—假陽性
- **20%** 的侵犯癌及 **40%** 早期癌並不會升高
- 大腸癌術後一個月 **CEA** 應降至正常值
- 適用於追蹤而非用於篩檢或診斷

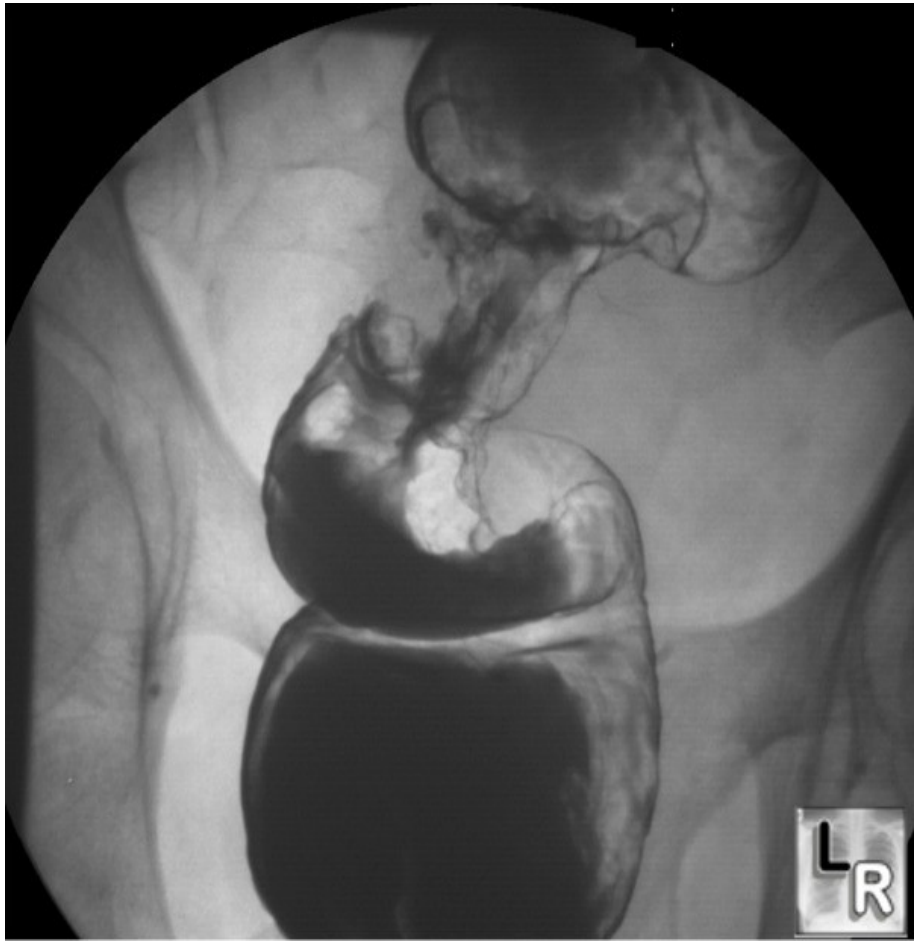
肛門指診

纖維乙狀結腸鏡



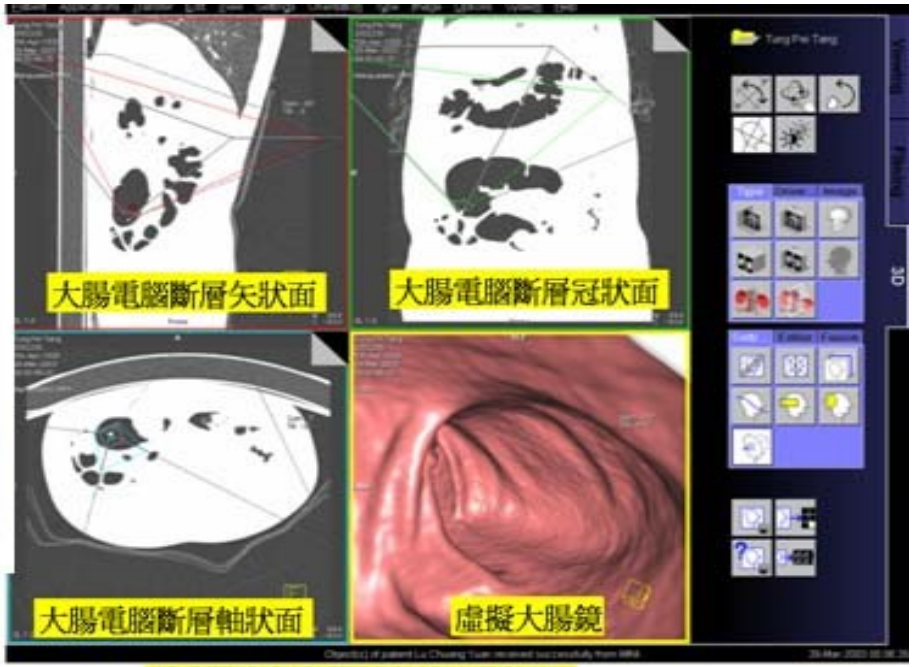


大腸鋇劑攝影

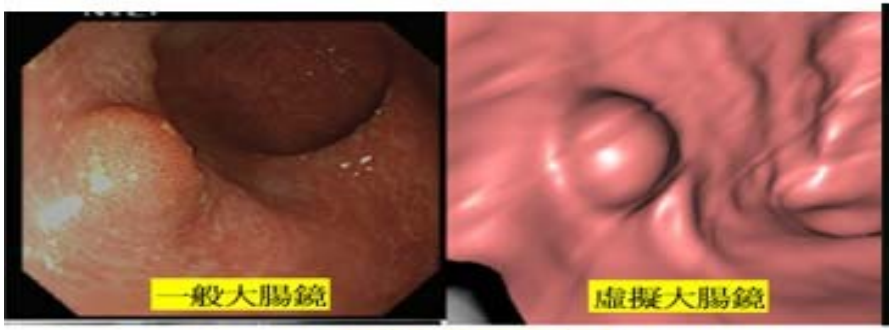


虛擬大腸鏡檢

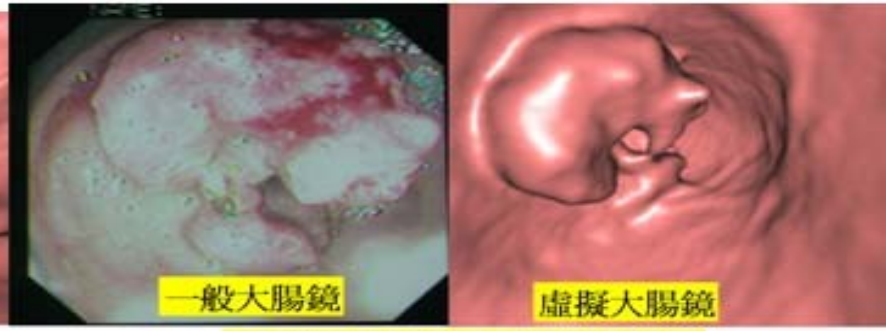
大腸充氣後,檢查者臥躺於
電腦斷層機器內接受掃描



大腸電腦斷層判讀工作站

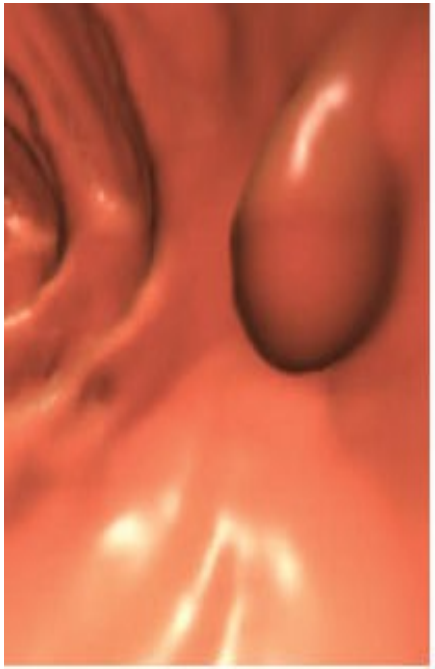


直腸的瘜肉

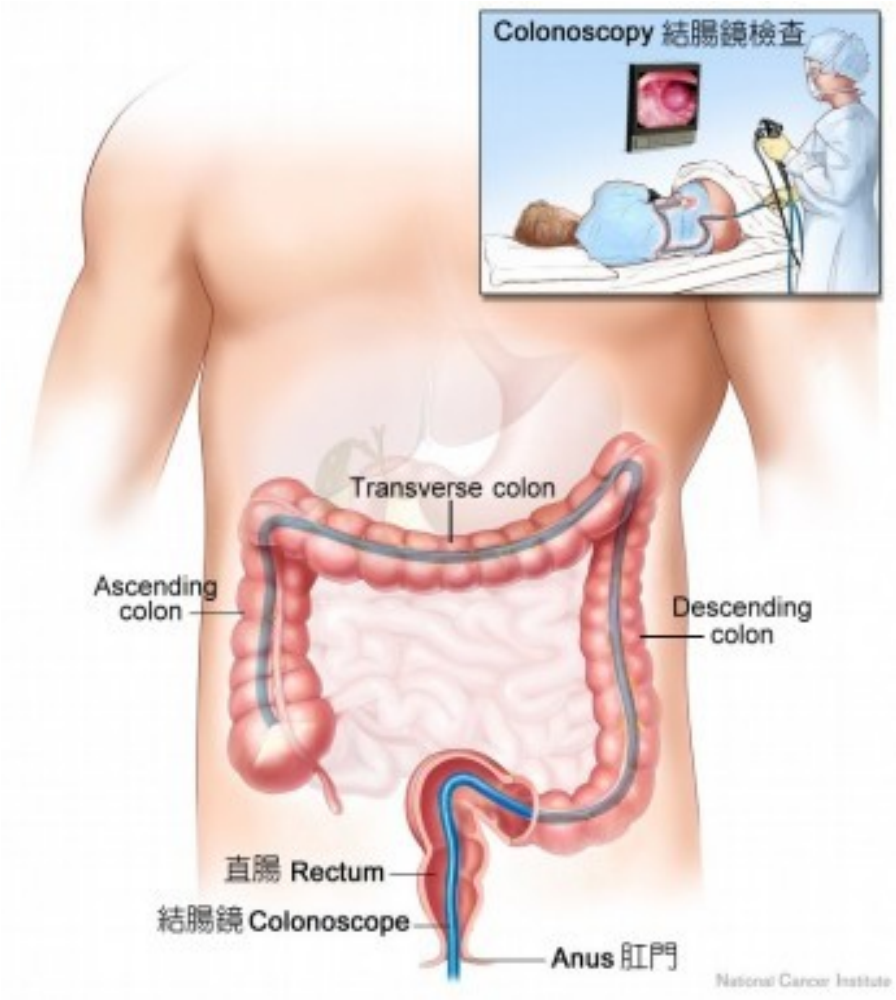


乙狀結腸的大腸癌

虛擬大腸鏡檢



大腸鏡檢


Colonoscopy 結腸鏡檢查
Transverse colon
Ascending colon
Descending colon
直腸 Rectum
結腸鏡 Colonoscope
Anus 肛門
National Cancer Institute

大腸鏡檢

Fig. 2-4 Endoscopic view of the Rb segment immediately after insertion.
Insertion is performed under decreased air volume.

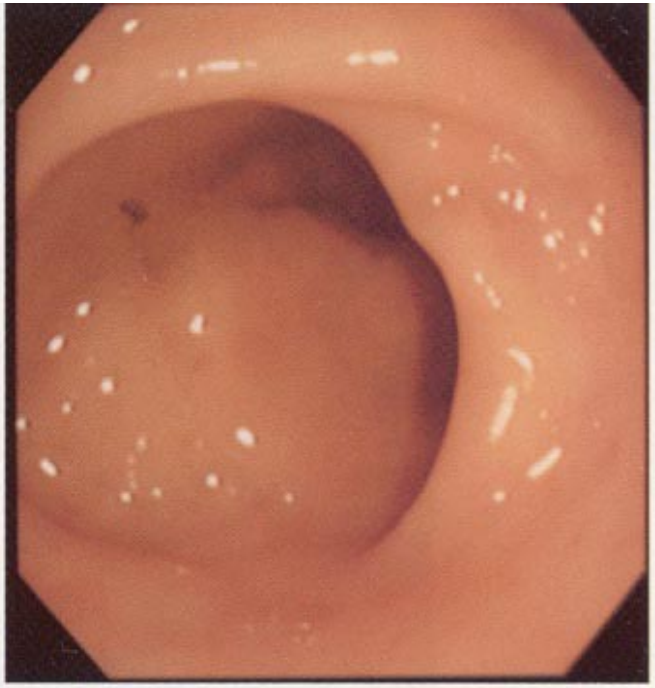


Fig. 2-5 Endoscopic view of the Rs segment.
The Rs segment is entered after two Houston valves are passed.

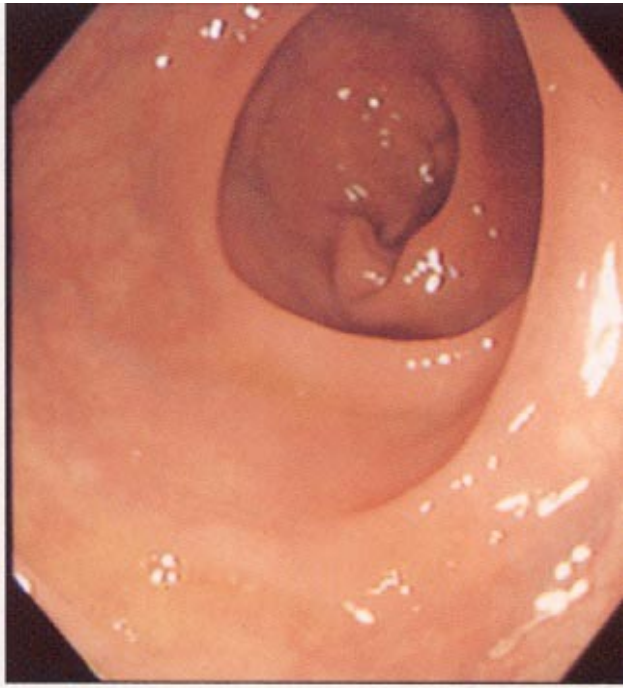
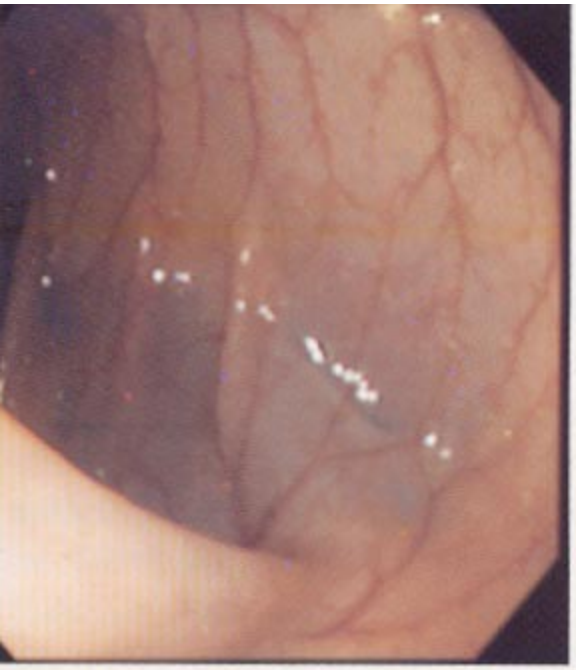


Fig. 2-6 Endoscopic view of the sigmoid colon.
As a rule, the lumen should be seen in the upper right side.

大腸鏡檢



. 2-8 Endoscopic view of the
enic flexure.
a rule, the lumen should be seen on the
side.

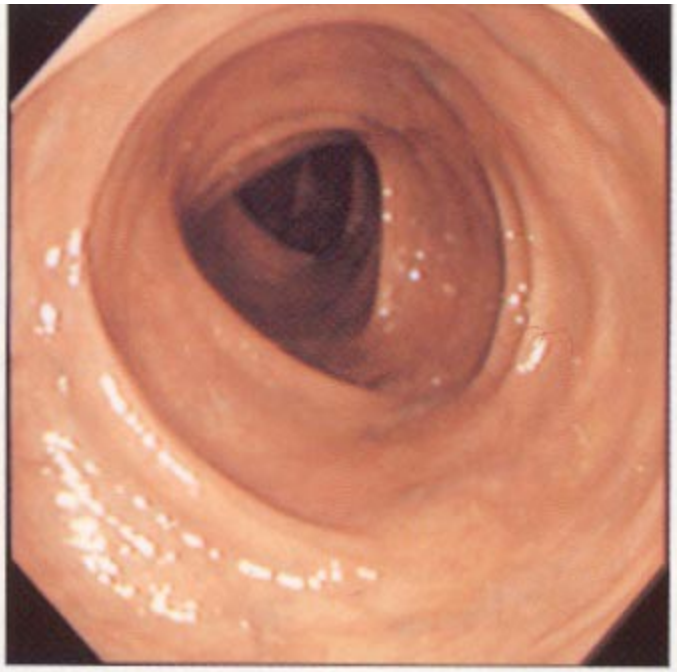


Fig. 2-9a Endoscopic view of the left transverse colon.
The characteristic triangular lumen is shown. When this lumen is seen in the distant view, insertion should be done after air volume is decreased and the gut is shortened.

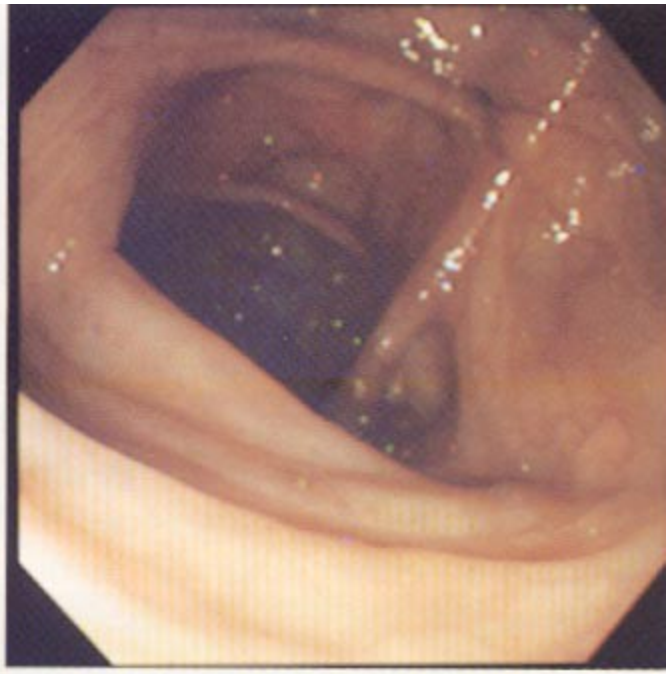


Fig. 2-9b Endoscopic view of the lowest part of the transverse colon.
After the lowest folds are passed, a left turn is made, followed by shortening and straightening of the colon.

大腸鏡檢

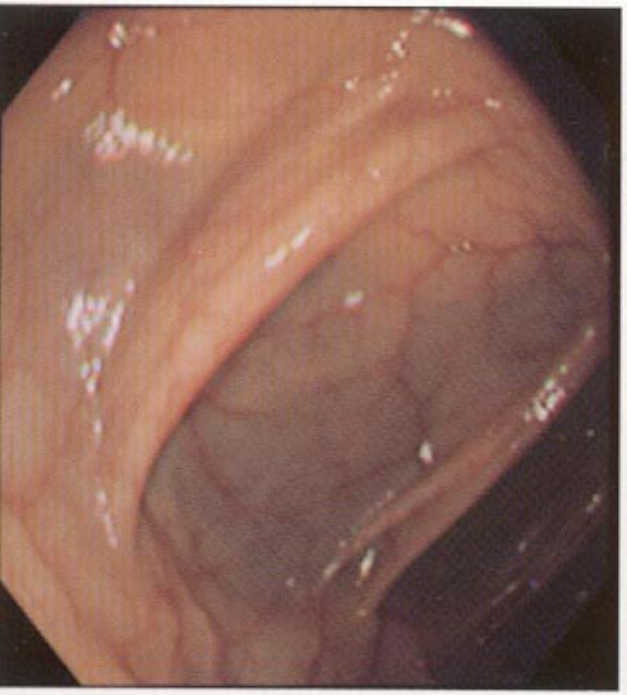


Fig. 2-10 Endoscopic view of the hepatic flexure.
As blue spots are seen on the left side, turn the scope right into the ascending colon.

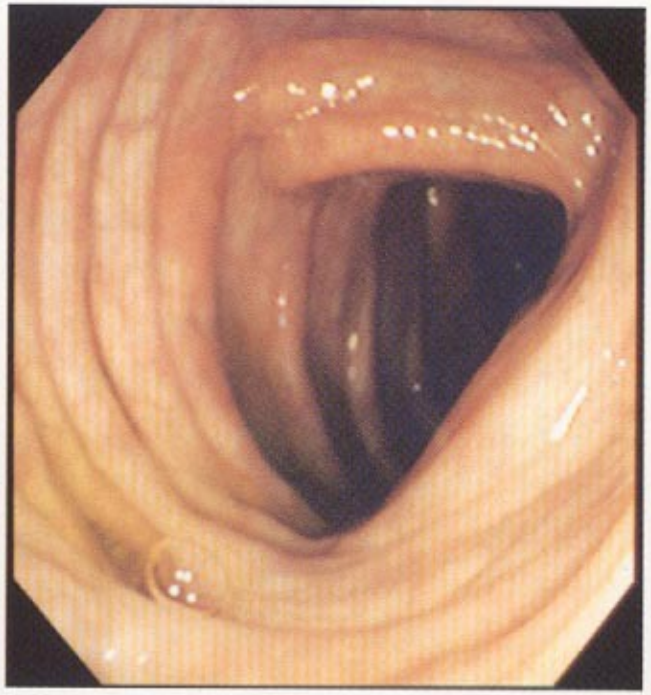


Fig. 2-11 Endoscopic view of the ascending colon.
The ascending colon, characterized by deep haustra, should be carefully observed.

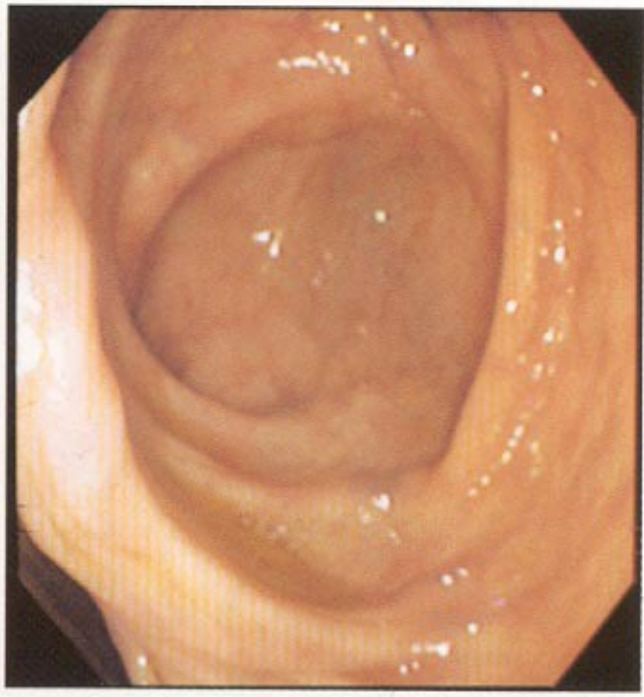
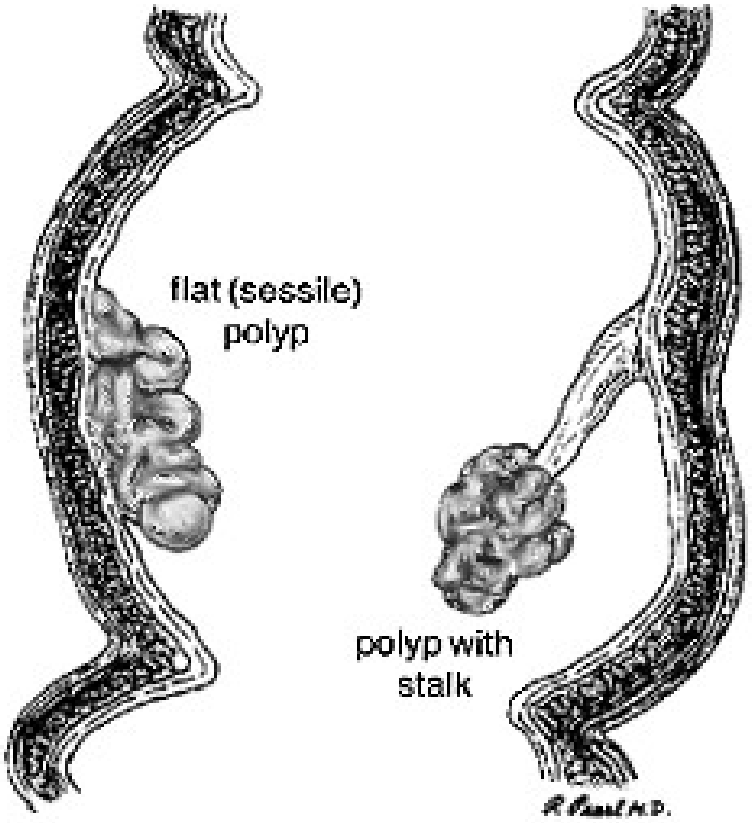


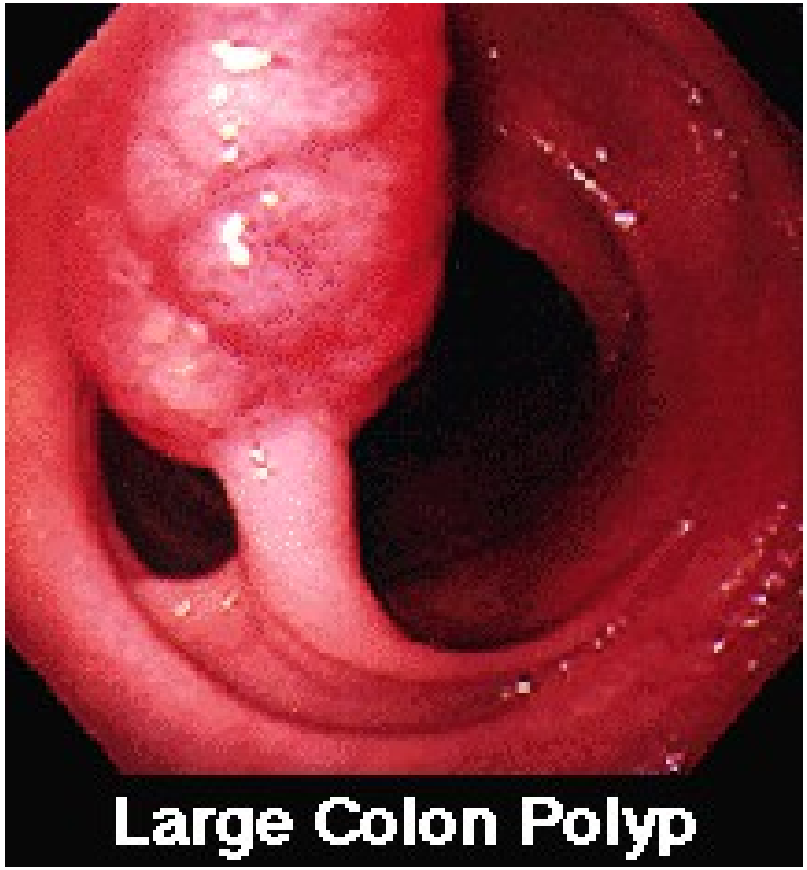
Fig. 2-12 Endoscopic view of the cecum.
Bauhin's valve is seen on the left side of the visual field.

大腸息肉

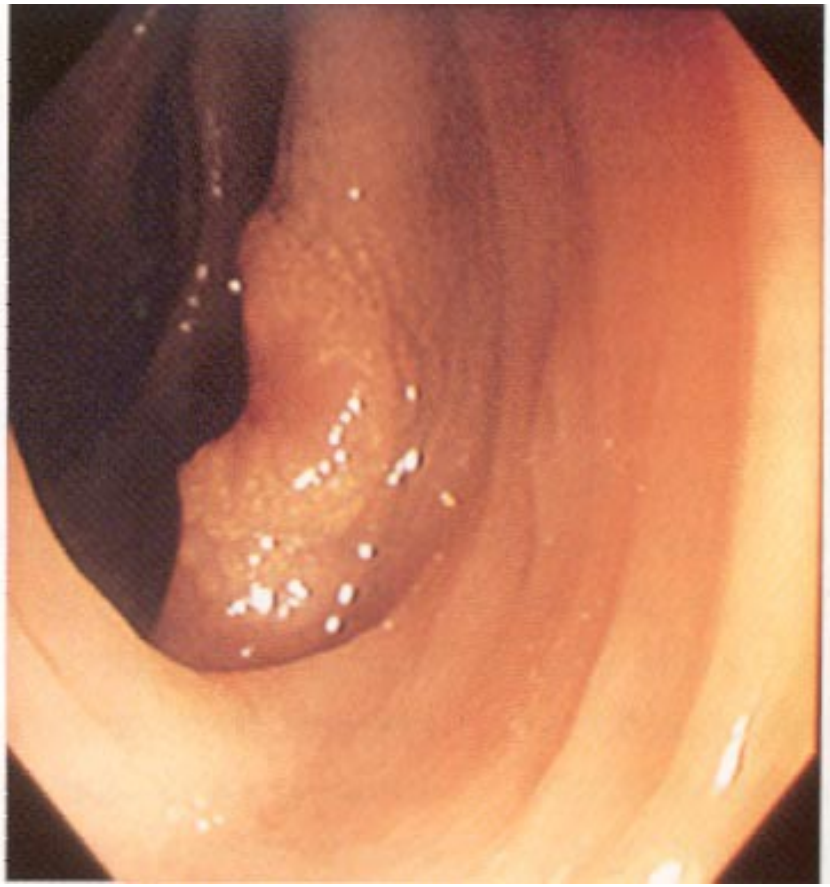
- 大小、形態
- 柱狀腺瘤
- 絨毛狀腺瘤
- 柱絨毛狀腺瘤
- 有蒂腺瘤
- 扁平腺瘤

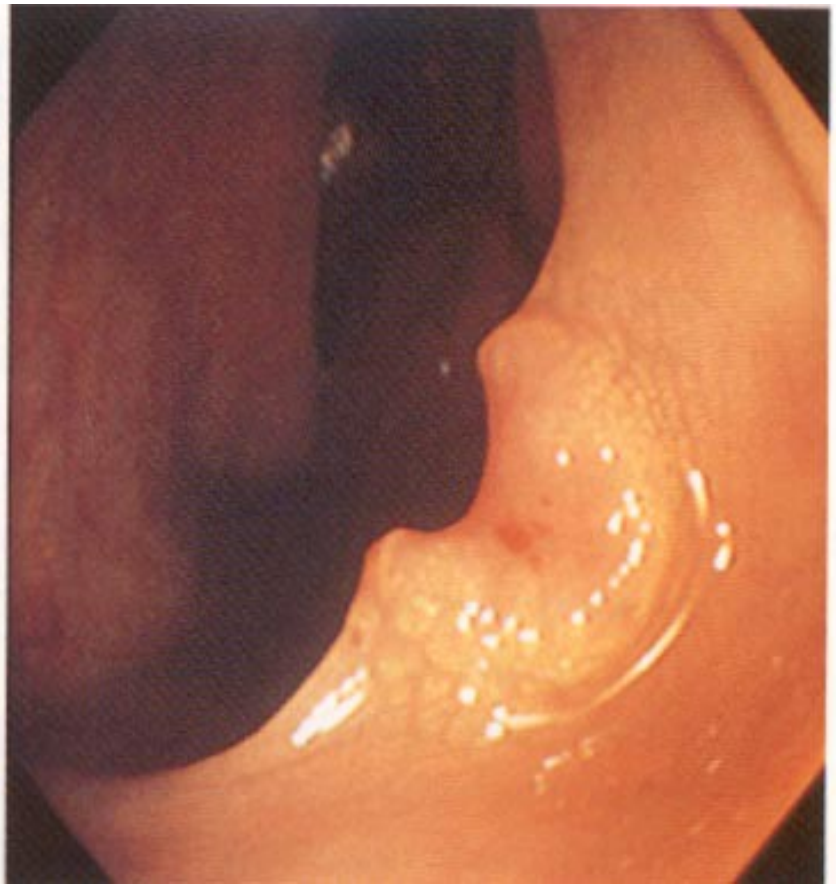


大腸息肉

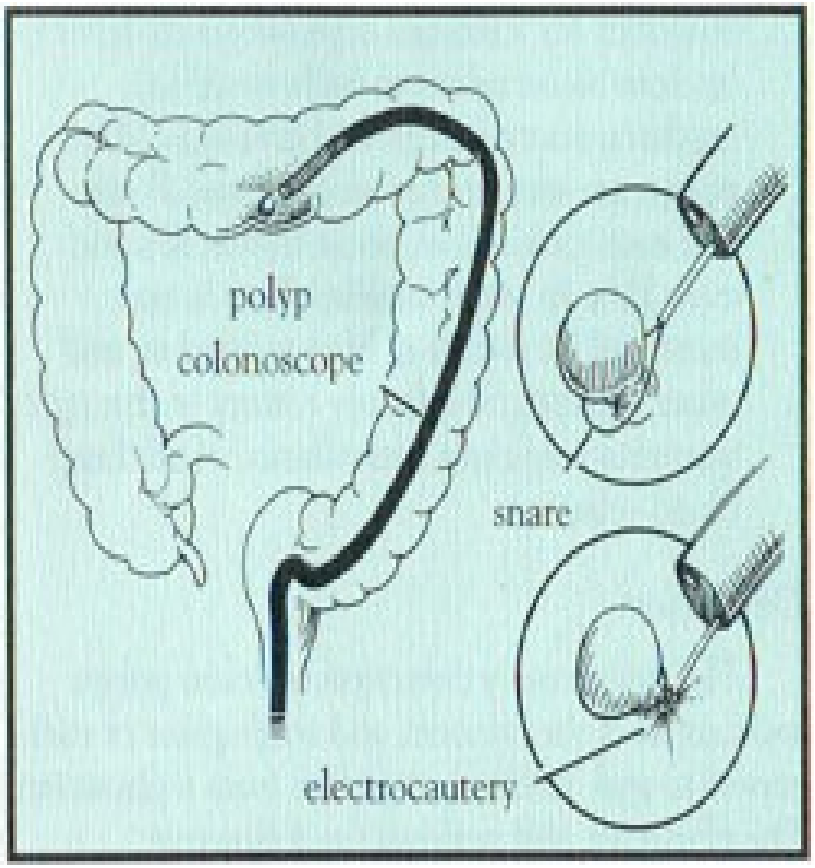


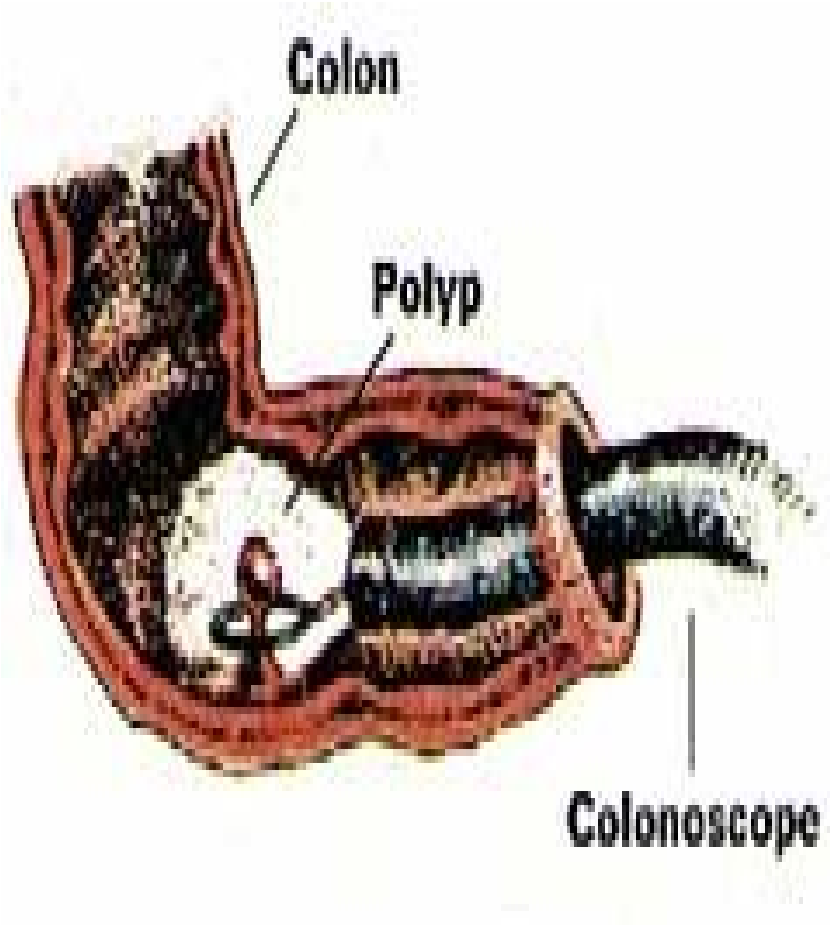
大腸早期癌症

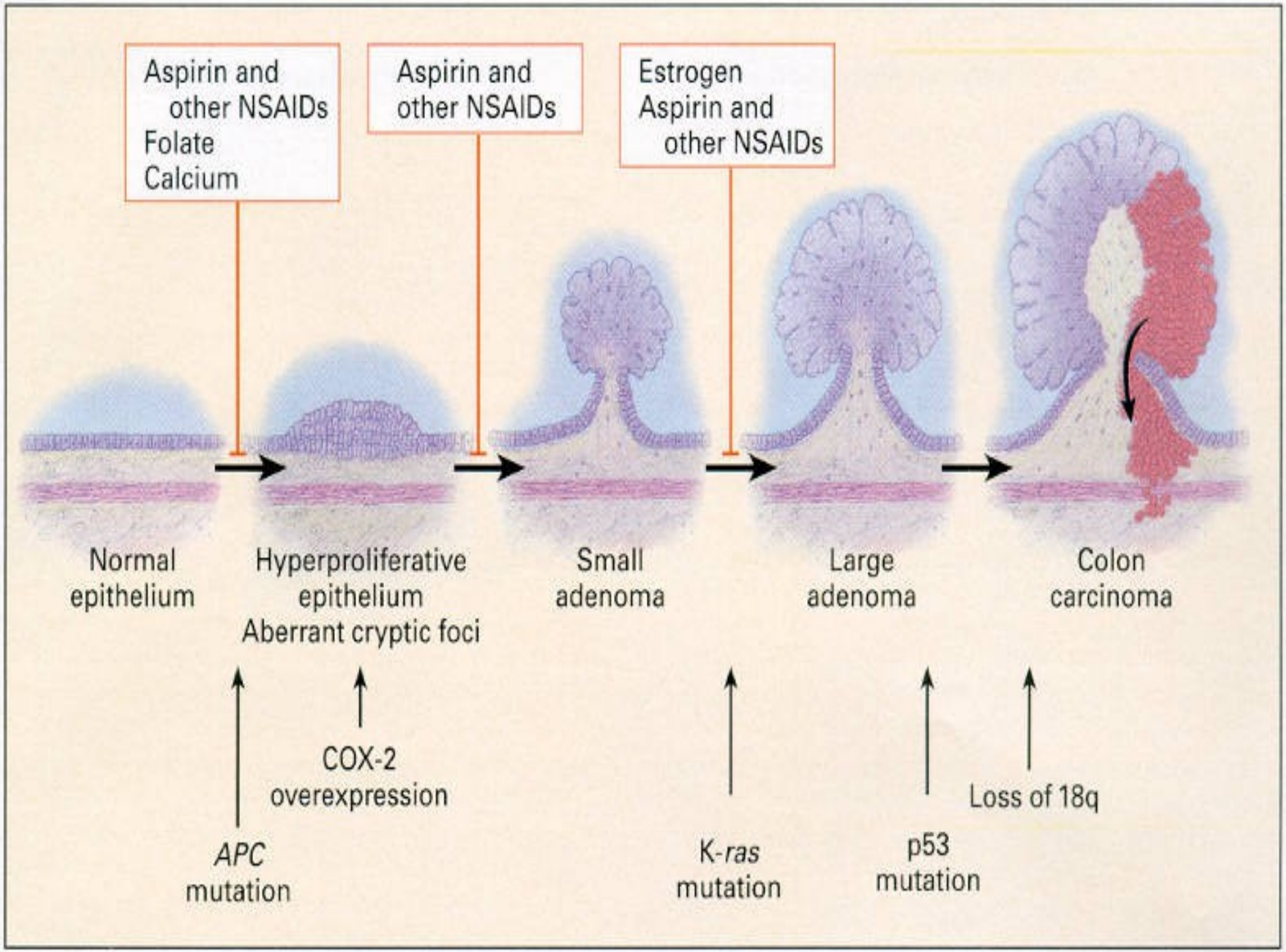




大腸鏡息肉切除


polyp
colonoscope
snare
electrocautery


Colon
Polyp
Colonoscope


Aspirin and other NSAIDs
Folate
Calcium
Aspirin and other NSAIDs
Estrogen
Aspirin and other NSAIDs
Normal epithelium
Hyperproliferative epithelium
Aberrant cryptic foci
Small adenoma
Large adenoma
Colon carcinoma
COX-2 overexpression
APC mutation
K-ras mutation
p53 mutation
Loss of 18q

大腸癌的分佈

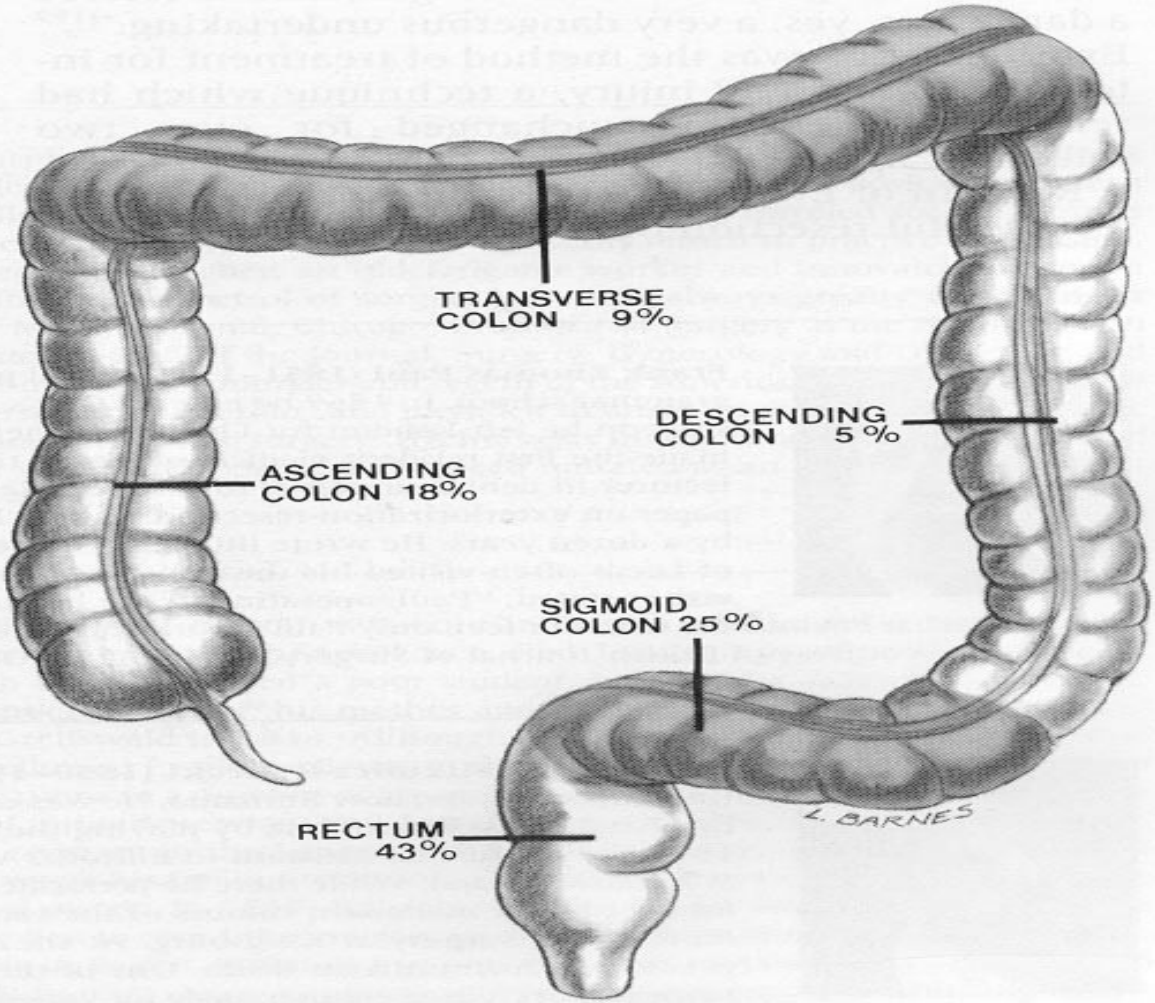


Figure 11-29. *Distribution of colon and rectal cancer.*

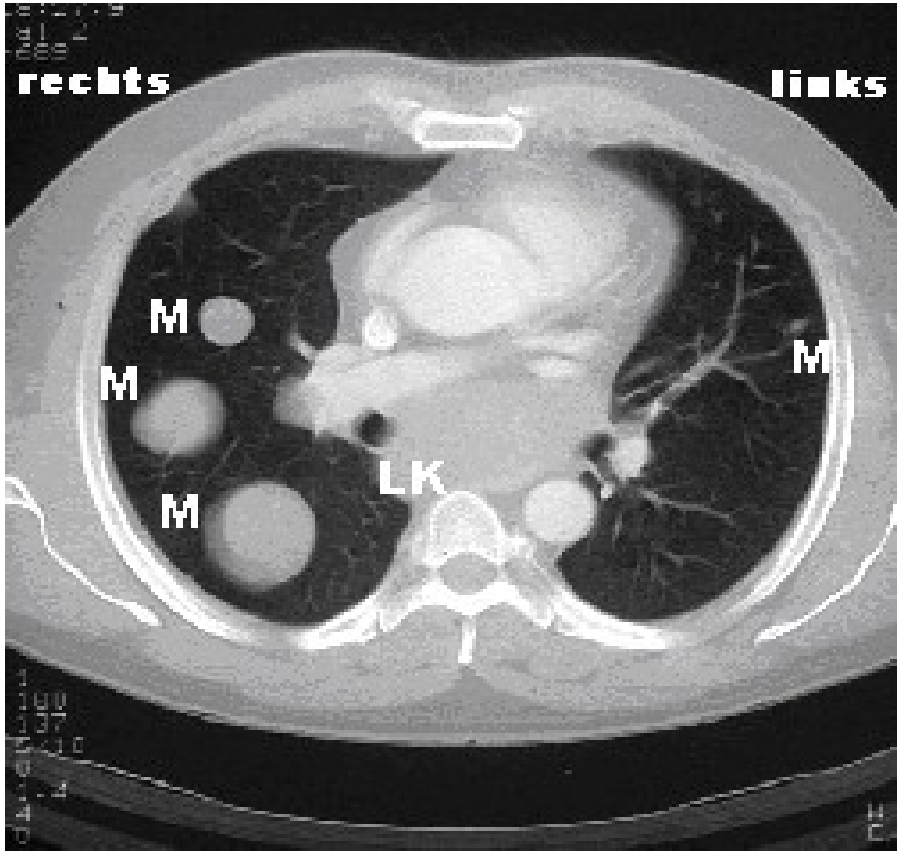
大腸癌的分期 Dukes

- A 期：腫瘤限於腸壁內，無淋巴轉移。
- B 期：腫瘤已超出腸壁。
- C 期：淋巴已轉移。
- D 期：遠端轉移者。

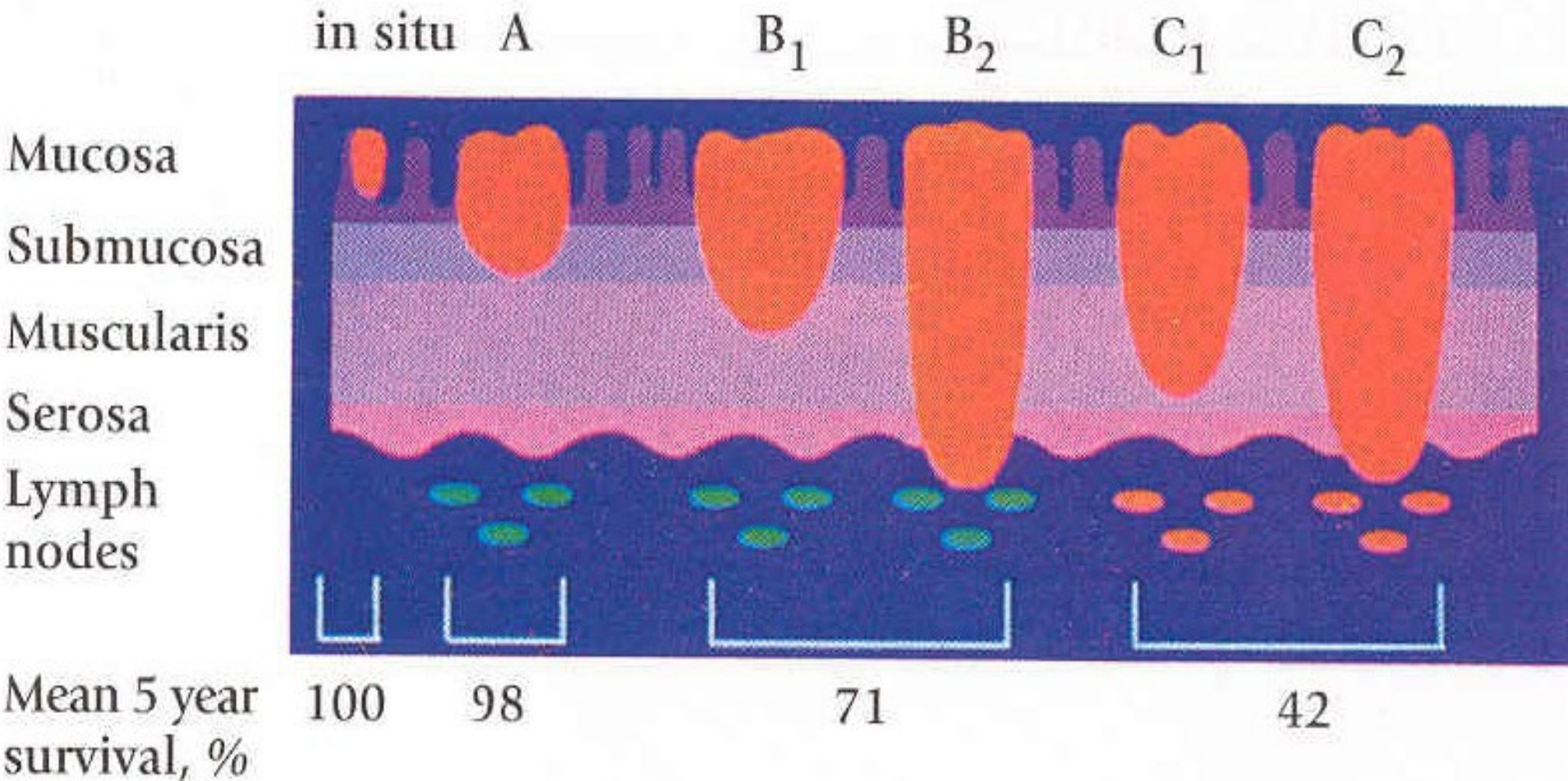
Astler - Coller

- A 期 : 癌細胞止於黏膜內
- B1 期 : 侵犯至肌肉層無淋巴腺轉移
- B2 期 : 侵犯至漿膜層無淋巴腺轉移
- C1 期 : 止於腸壁內有淋巴腺轉移
- C2 期 : 穿過腸壁有淋巴腺轉移
- D 期 : 遠端轉移

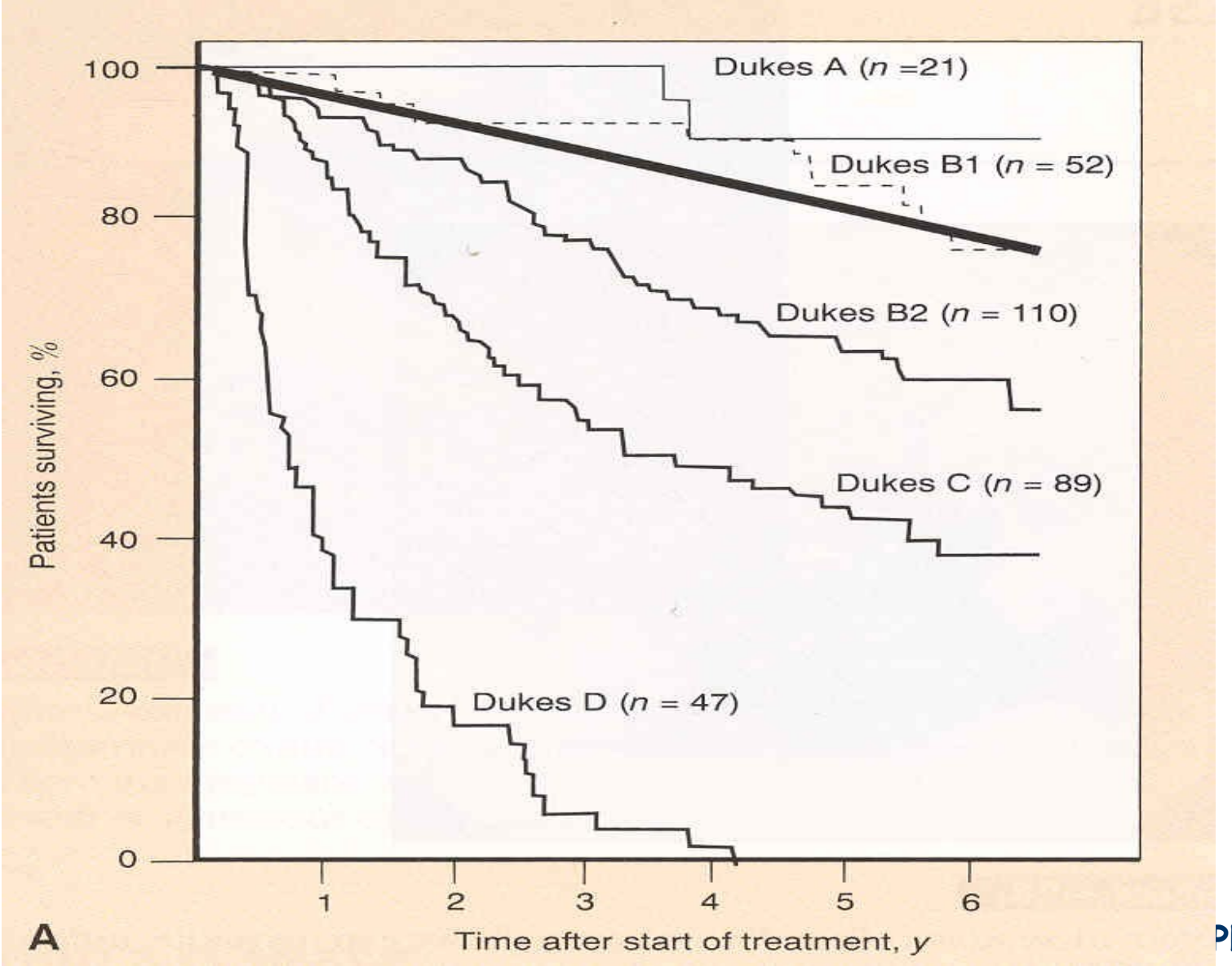
大腸癌遠端轉移



Prognosis of Colon Cancer - modified Duke's classification



Survival probabilities for colorectal cancer



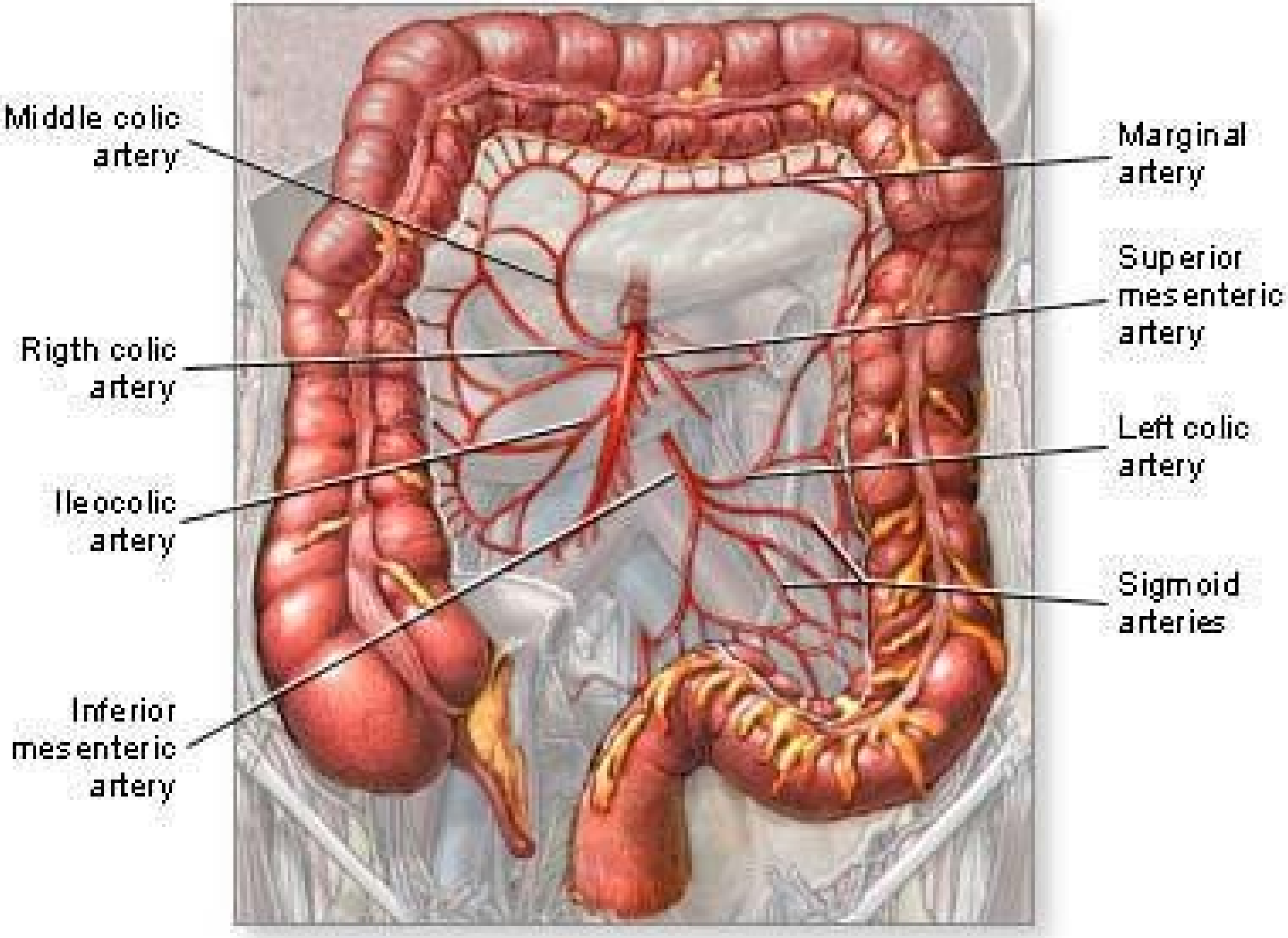
Pharmacy

大腸癌的治療

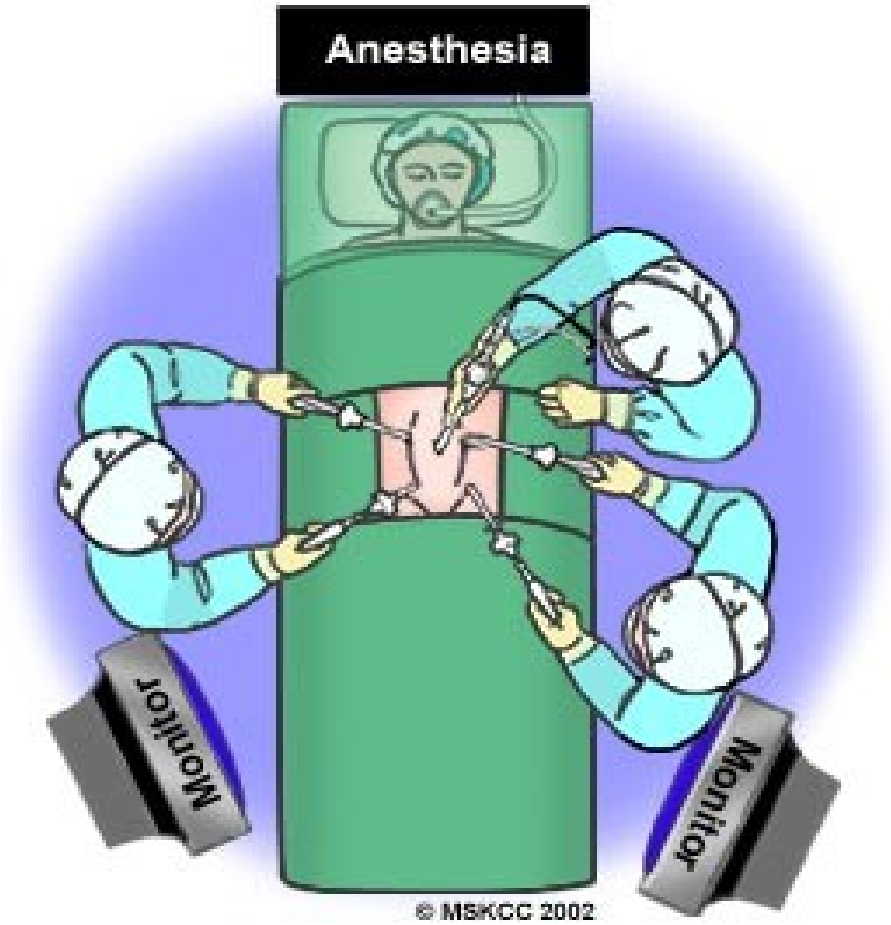
- 手術治療為主要治療方式
- 化學治療 5FU+Leucovorin
- 放射治療：直腸癌、骨頭轉移
- 免疫治療
- 基因治療

大腸癌的手術方式

- 右半結腸切除 (Right hemicolectomy)
- 左半結腸切除 (Left hemicolectomy)
- 前位切除 (Anterior resection)
- 低前位切除 (Low anterior resection)
- 大腸次全切除 (Subtotal colectomy)
- 腹會陰聯合切除 (Abdomino-perineal R.)
- 繞道手術 及人工肛門 Bypass & colostomy


Middle colic artery
Rigth colic artery
Ileocolic artery
Inferior mesenteric artery
Marginal artery
Superior mesenteric artery
Left colic artery
Sigmoid arteries

腹腔鏡手術


Anesthesia
Monitor
Monitor
© MSKCC 2002

Scar from open surgery
Scars from laparoscopic surgery

大腸癌手術的重點

- 術前的充分溝通
- 完整的身體評估
- 腫瘤的安全距離
- 防止腫瘤的擴散
- 接口血循及張力
- 細心的術後照顧

大腸癌的預防

- 減少動物性蛋白質及脂肪的攝取
- 避免菸酒
- 增加纖維素飲食
- 適度的運動
- 養成固定排便的習慣
- 定期的篩檢

大腸癌的篩檢

- 早期發現早期治療且治療容易
- 息肉切除可降低八成患大腸癌的機會
- 早期大腸癌治癒率近乎百分百
- 無症狀的高危險群
- 無症狀大於五十歲的族群
- 每年一次糞便潛血檢查
- 每五年一次乙狀結腸鏡檢查
- 每十年一次大腸鏡檢查

大腸癌的高危險群

- 家族性大腸息肉症 (FAP)
- 遺傳性非息肉症大腸癌 (HNPCC)
- 潰瘍性結腸炎及克隆氏症
- 本人或家人曾患乳癌`生殖癌者
- 本人或家人曾患大腸癌或大腸息肉者
- 腸道曾接受放射治療者
- 膽囊 切除術後

結　　論

- 大腸癌是不容乎視的殺手
- 大腸癌的治療比肝癌、肺癌容易
- 早期大腸癌治療有近乎完美的結果
- 大腸癌有各種工具可早期診斷
- 高纖低油少肉的飲食、規律的運動定期的篩檢讓我們遠離大腸癌

THANK YOU