

BRACHYTHERAPY FOR GASTROINTESTINAL CANCER

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International Atomic Energy Agency

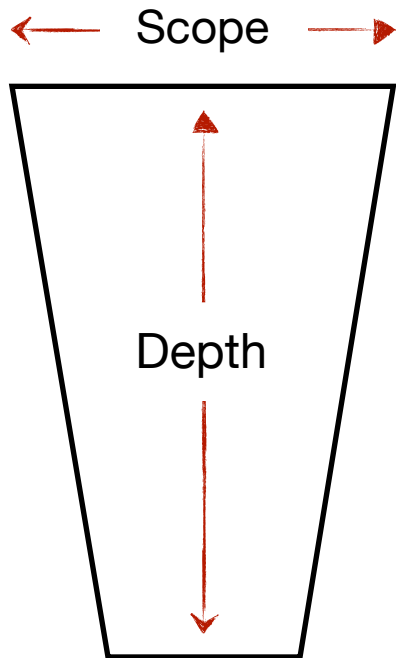
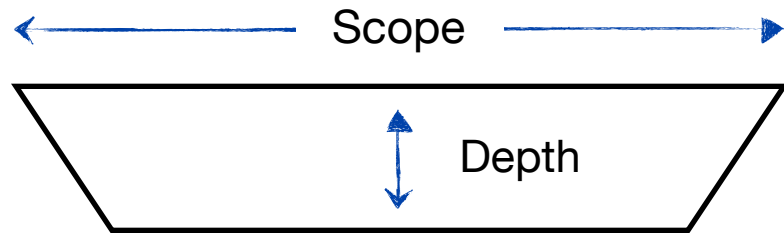


IAEA

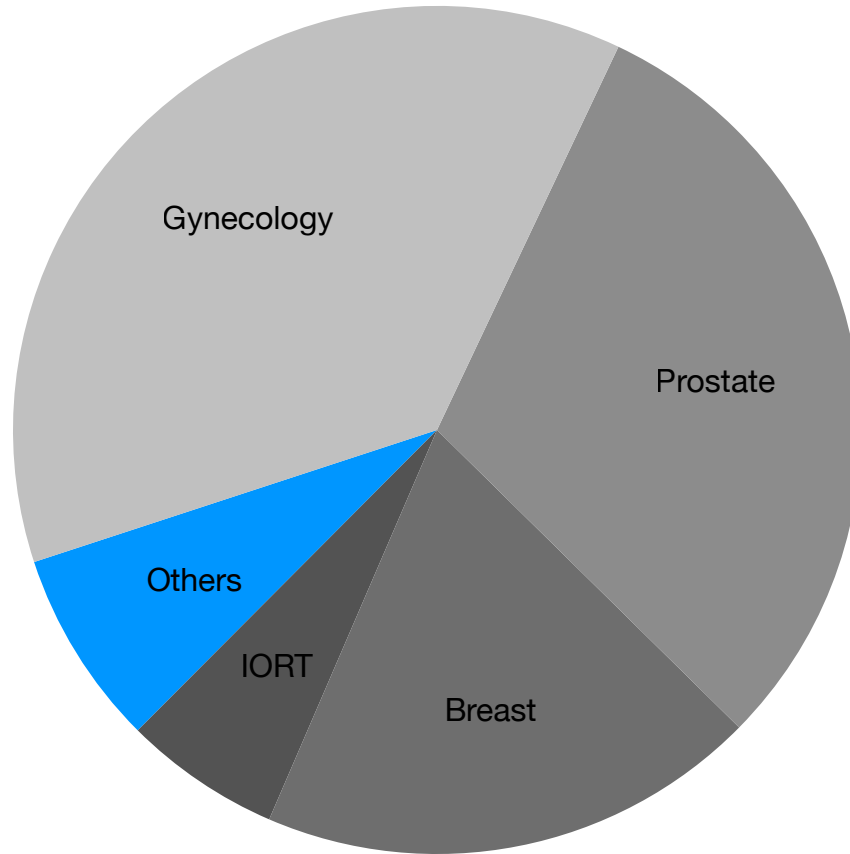
60 Years

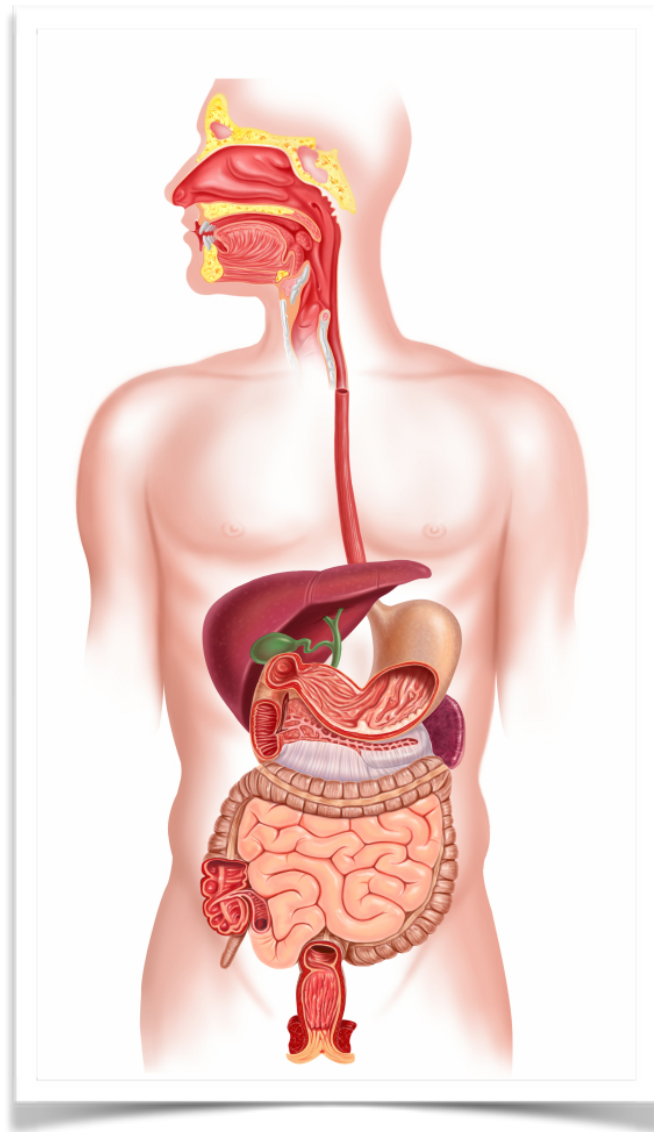
Atoms for Peace and Development

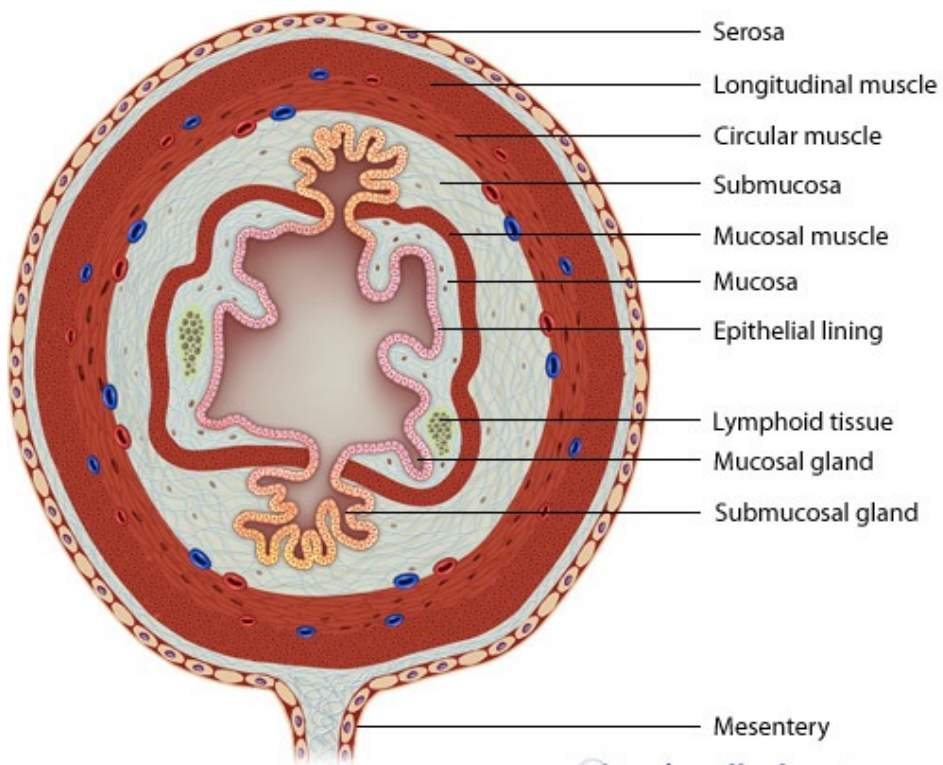




DISTRIBUTION OF PATIENTS







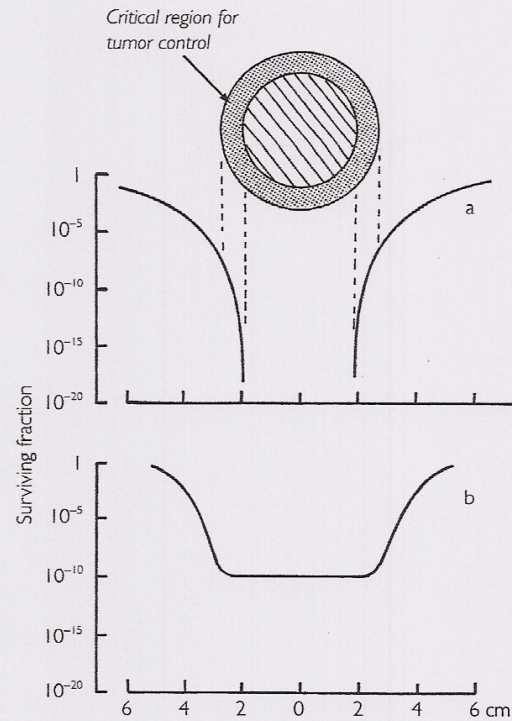
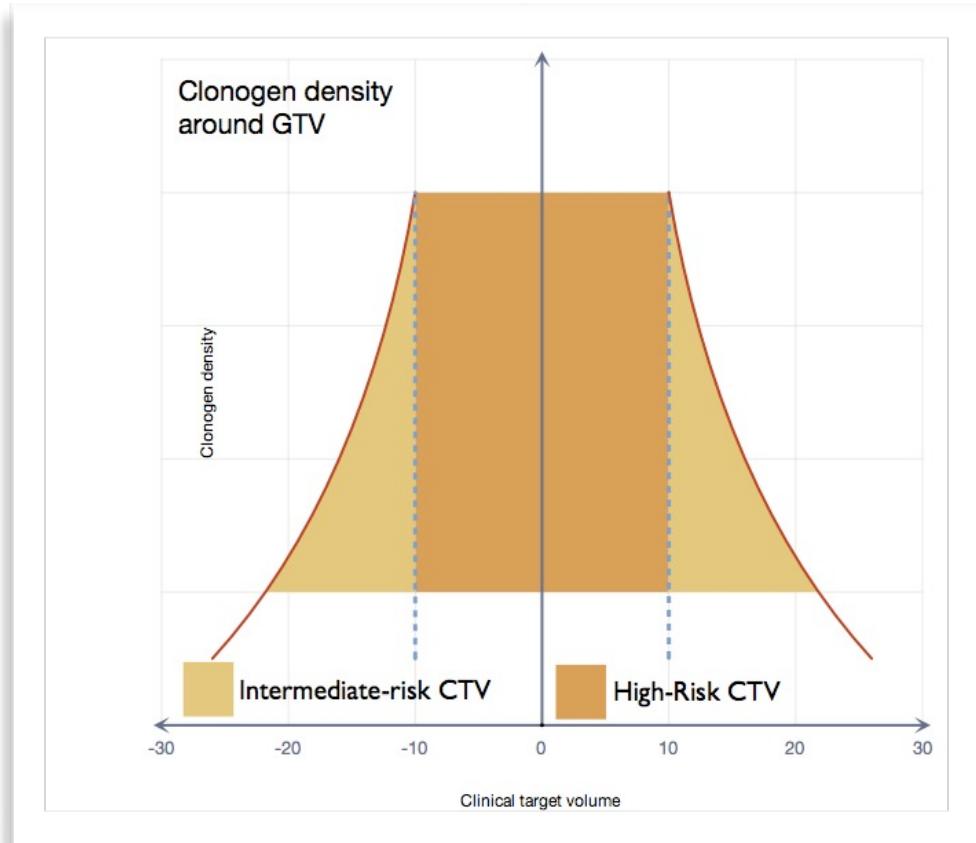
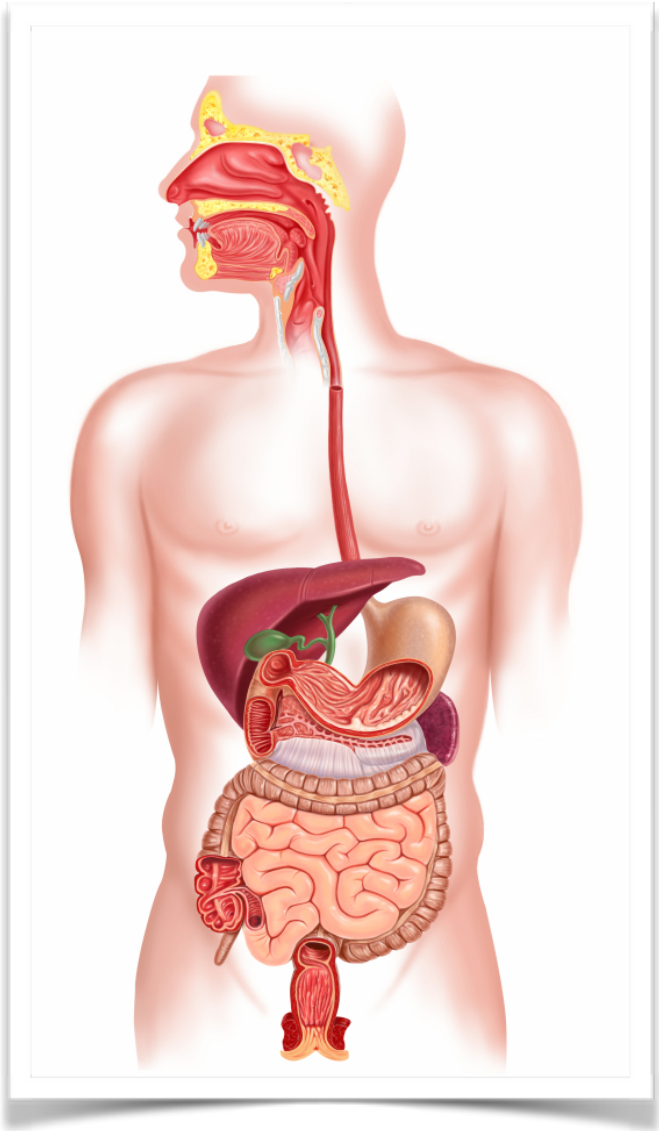


Figure 12.7 Variation of cell kill around a point source of radiation. The source gives 0.87 Gy min^{-1} at 2 cm (i.e. 75 Gy in 6 days); there are 10^9 cells per cm^3 , for which $-\alpha = 0.35 \text{ Gy}^{-1}$, $\beta = 0.035 \text{ Gy}^{-2}$, half-time for recovery is 1 h. (a) The hatched area indicates the volume within which the surviving fraction is below 10^{-20} . The stippled area indicates the volume where survival is between 10^{-20} and 10^{-6} , which is the critical region for tumor control. For comparison, panel (b) shows the type of profile that would be aimed for with external-beam radiotherapy.



BRACHYTHERAPY FOR OESOPHAGEAL CANCER



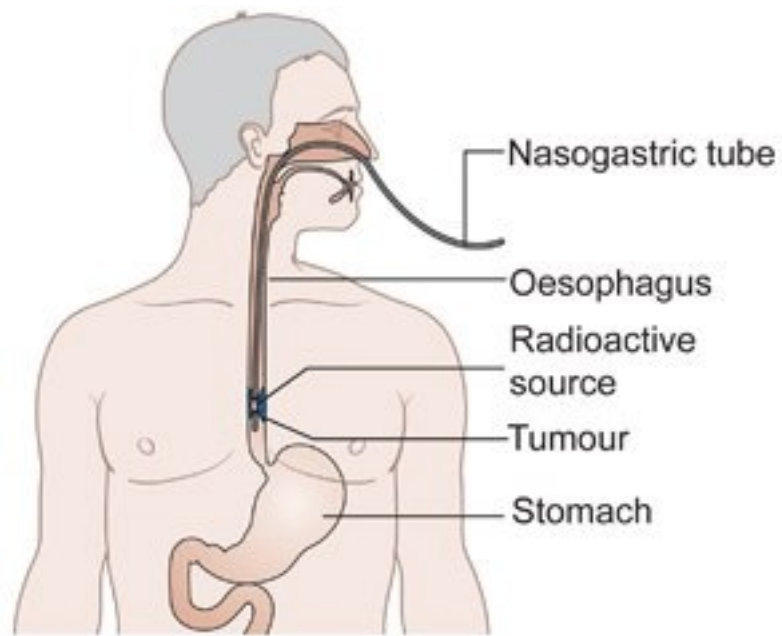
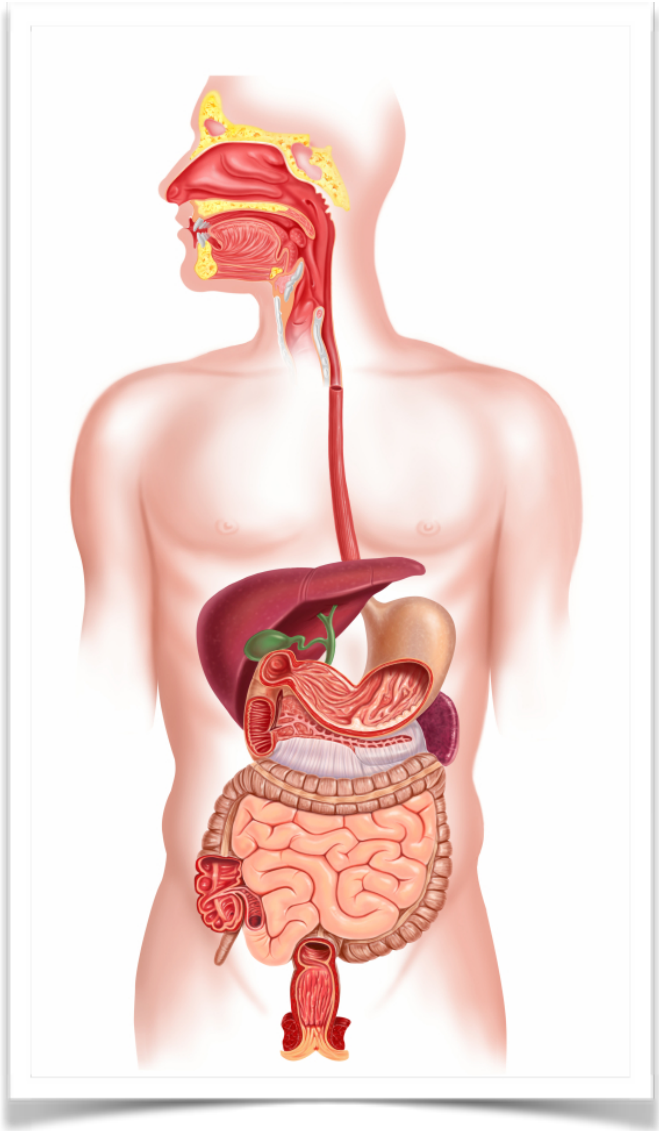
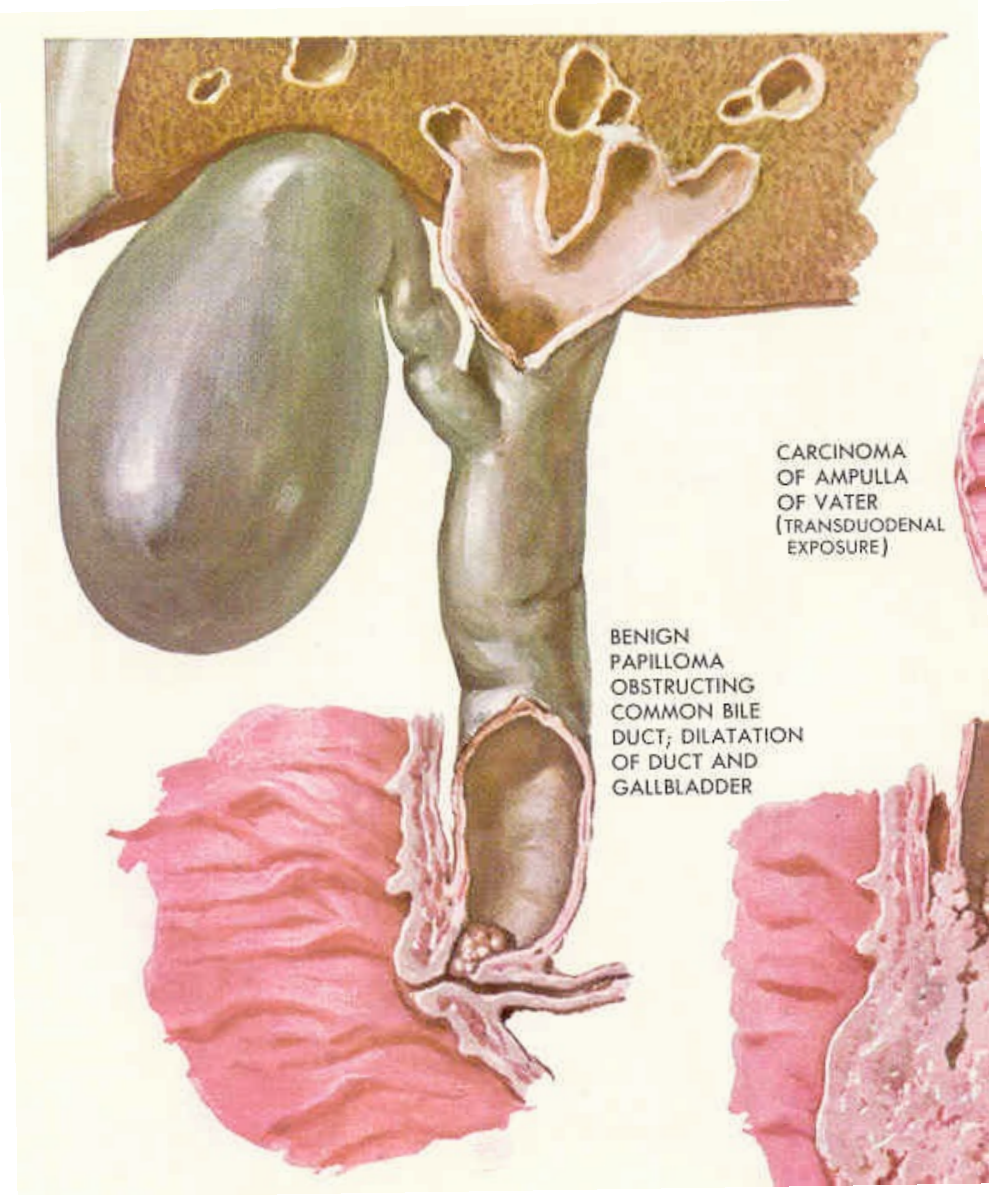


Diagram showing internal radiotherapy
for cancer of the oesophagus
Copyright © CancerHelp UK



BRACHYTHERAPY FOR BILIARY TRACT NEOPLASMS

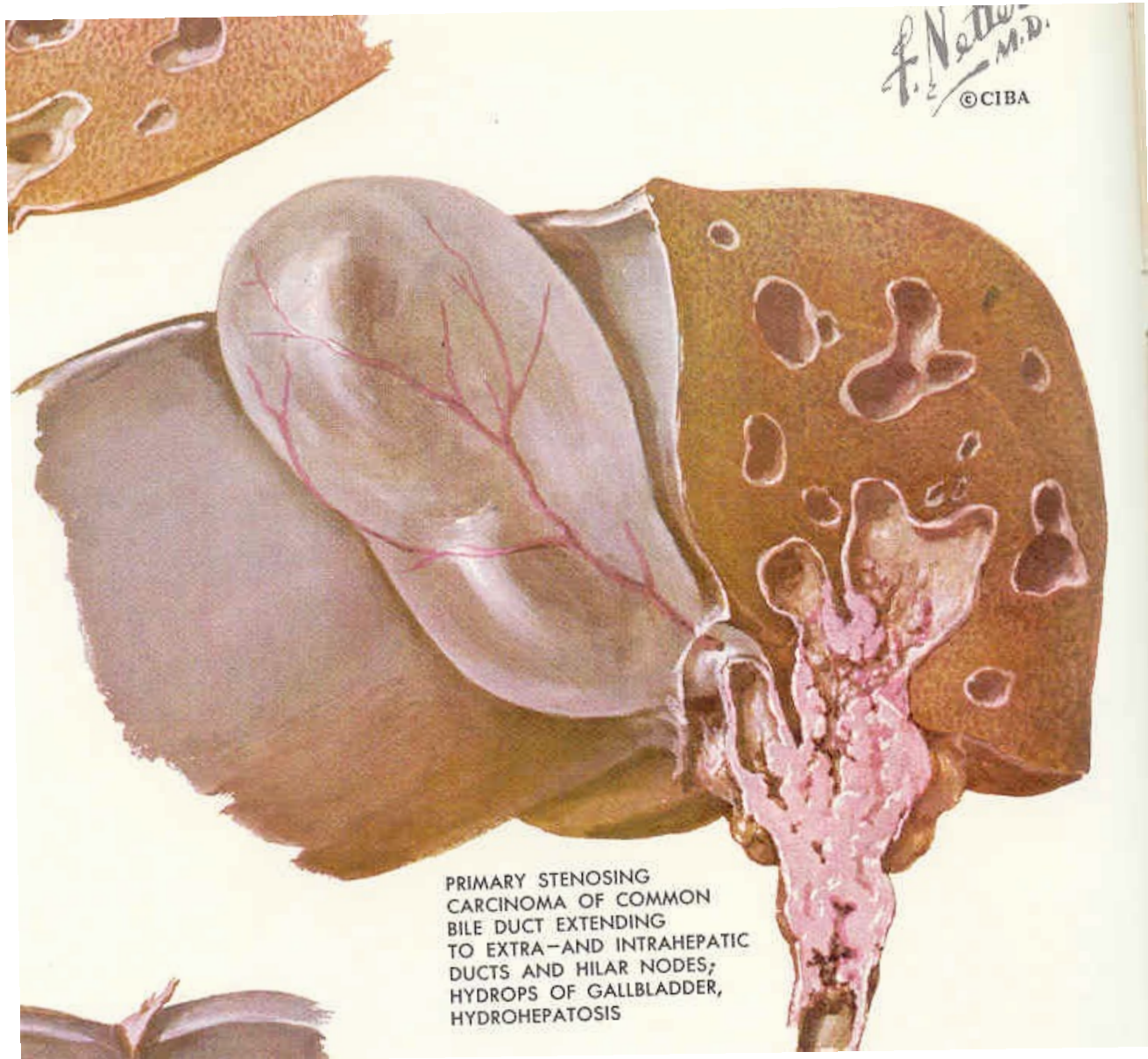




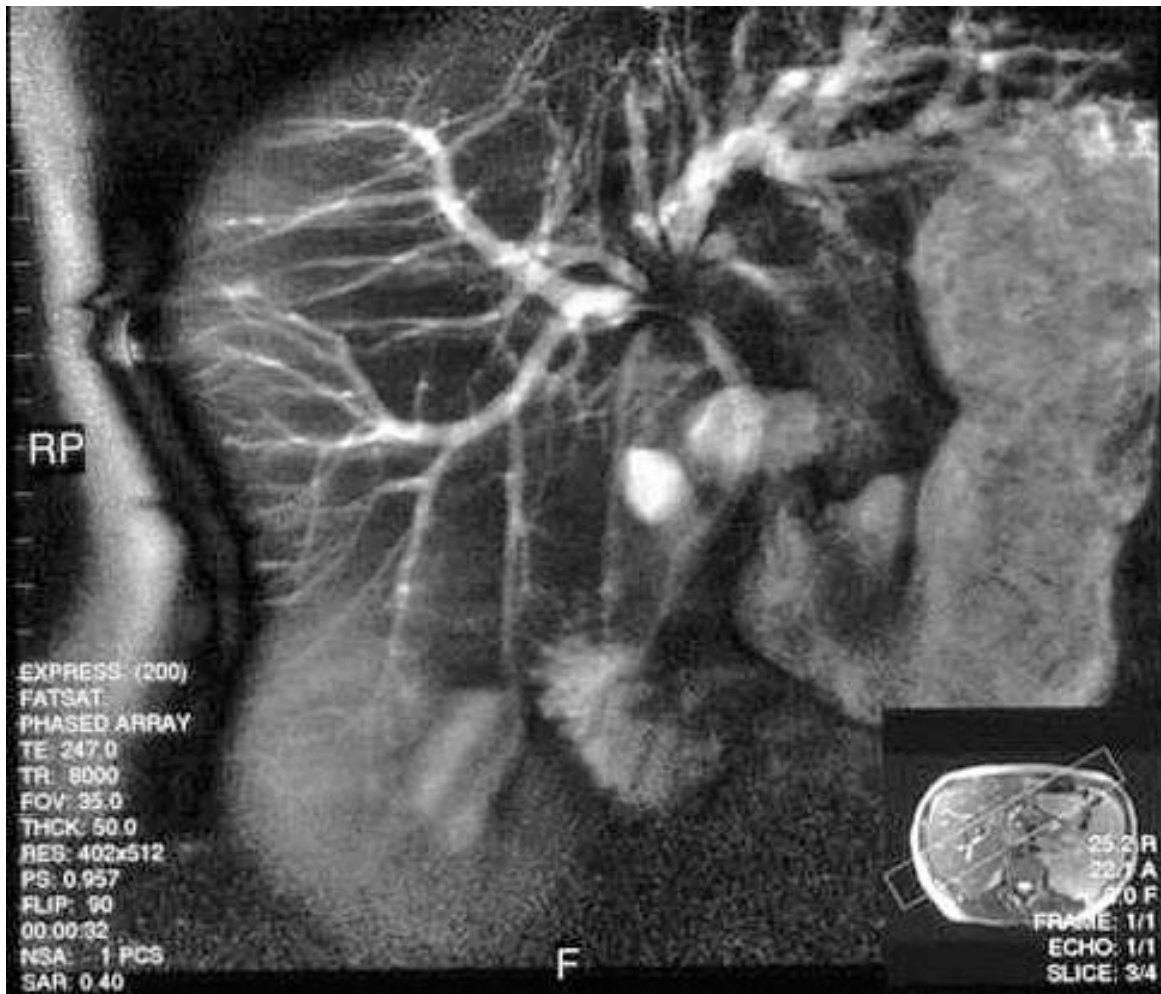
CARCINOMA
OF AMPULLA
OF VATER
(TRANSDUODENAL
EXPOSURE)

BENIGN
PAPILLOMA
OBSTRUCTING
COMMON BILE
DUCT; DILATATION
OF DUCT AND
GALLBLADDER

Ca of CBD Bifurcation

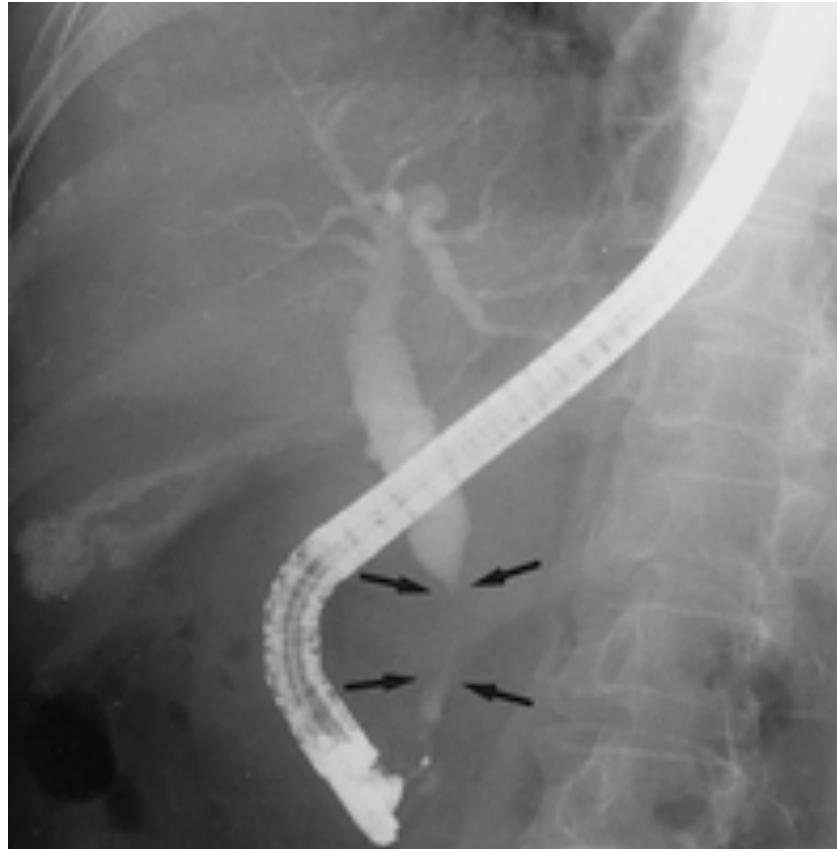




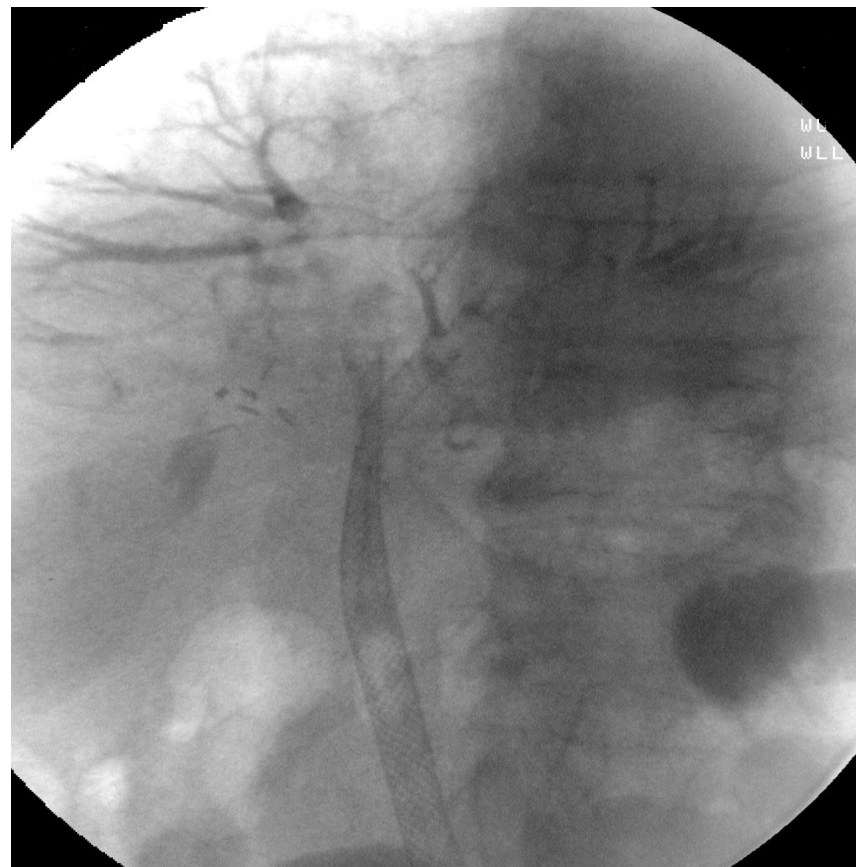
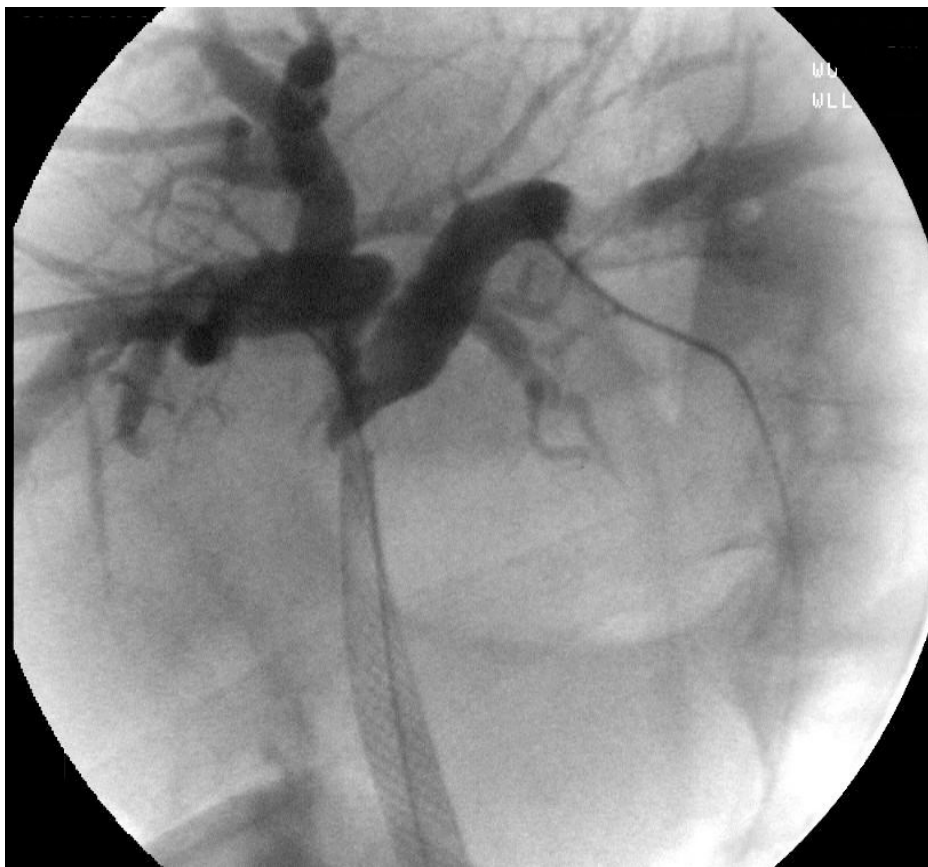


Klatskin tumor

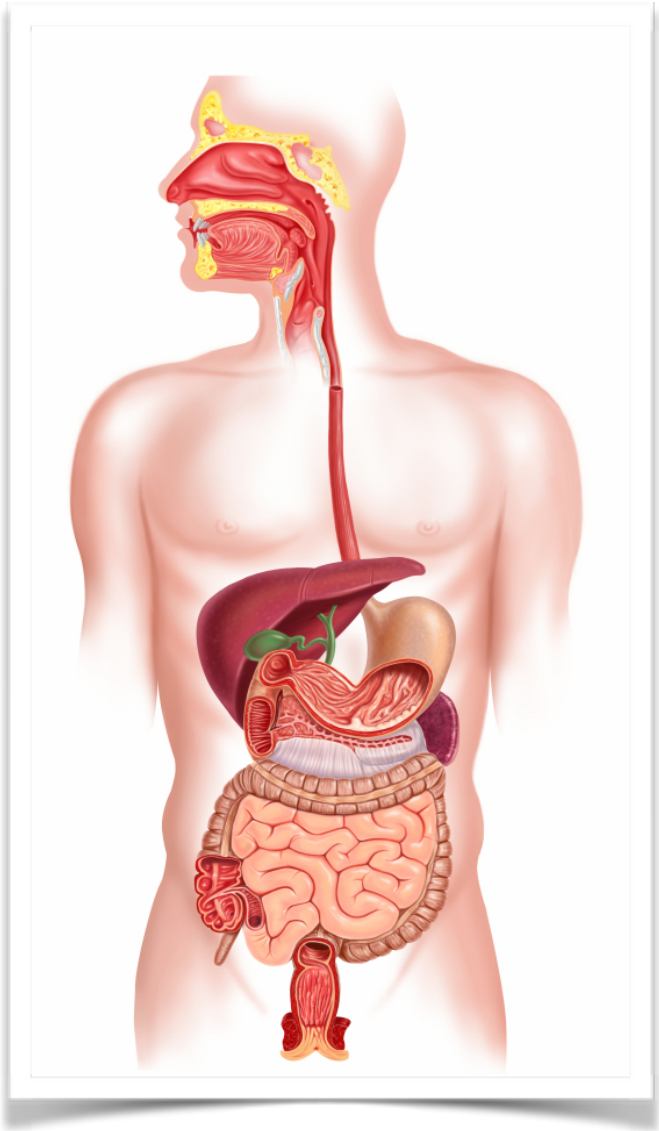
ERCP: Distal CBD Cancer



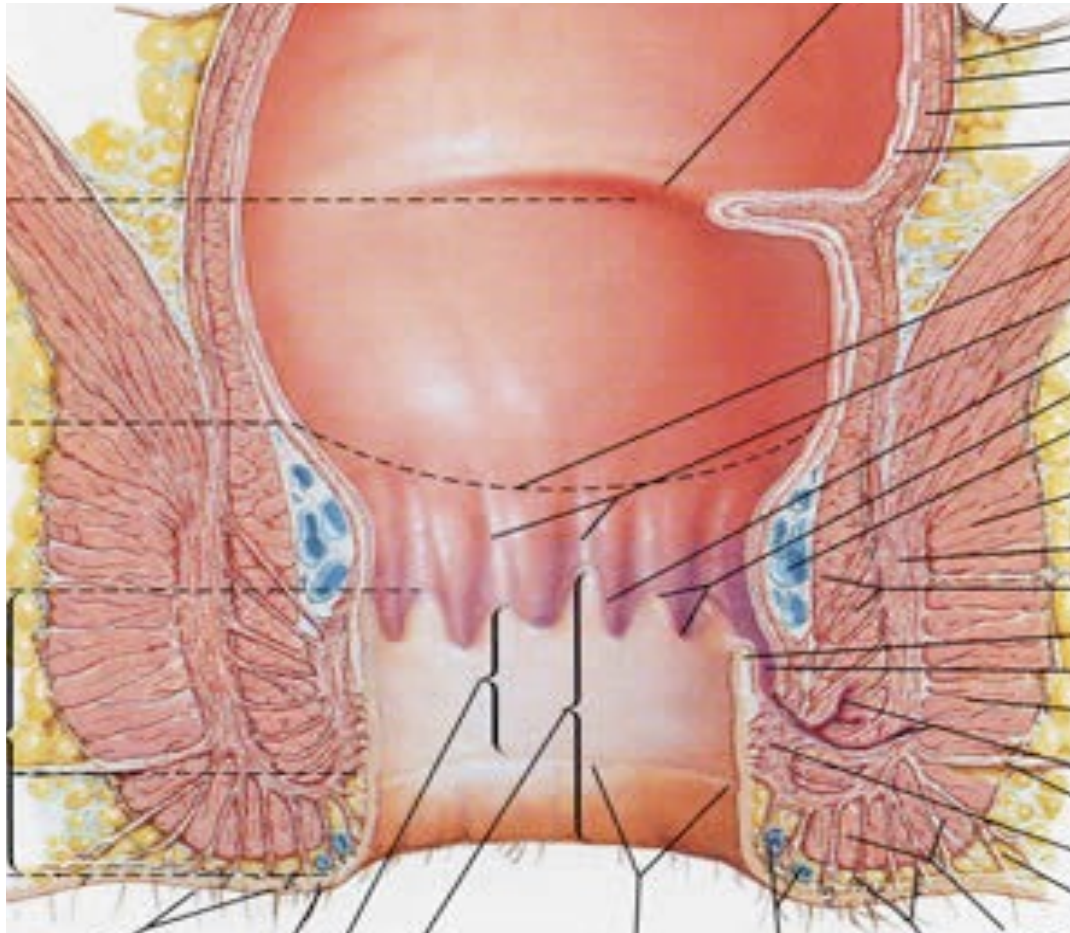




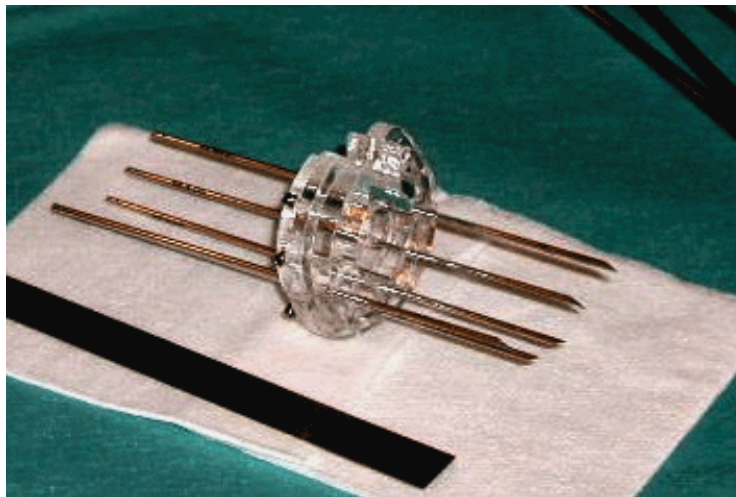
BRACHYTHERAPY FOR ANAL CANAL CANCER



Anatomic features



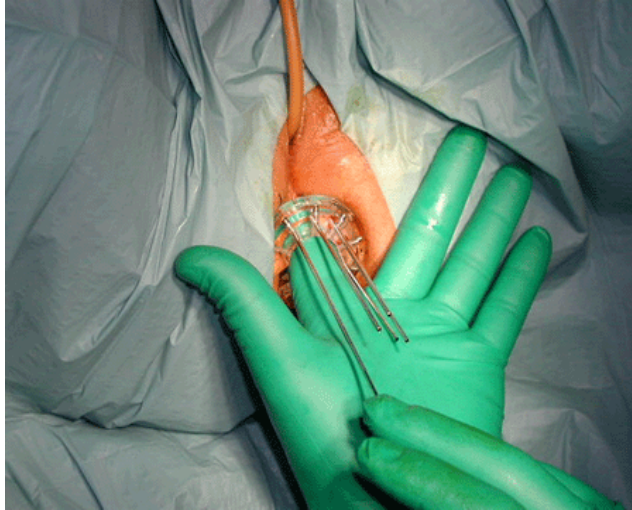
Implantation



- Ring template
 - Spacement : 1 cm
- Rigid Needles
 - 4 to 6 Ir wires
 - 4-5 cm long
- Paris System rules

Courtesy: Dr Peiffert

Implantation

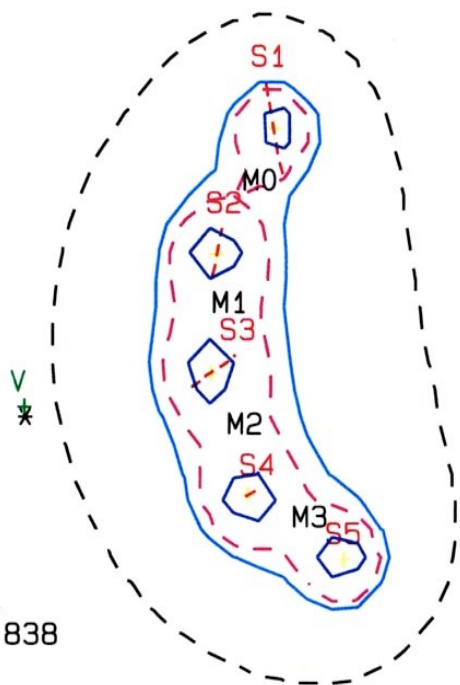


- Under digital control
 - Under the mucosa
 - 3-5 mm depth
- Rectal tube to push away contralateral anal canal wall

CANAL ANAL

PL: 1 PERPEN.AXE

M0: 28.109
M1: 34.800
M2: 32.985
M3: 31.459



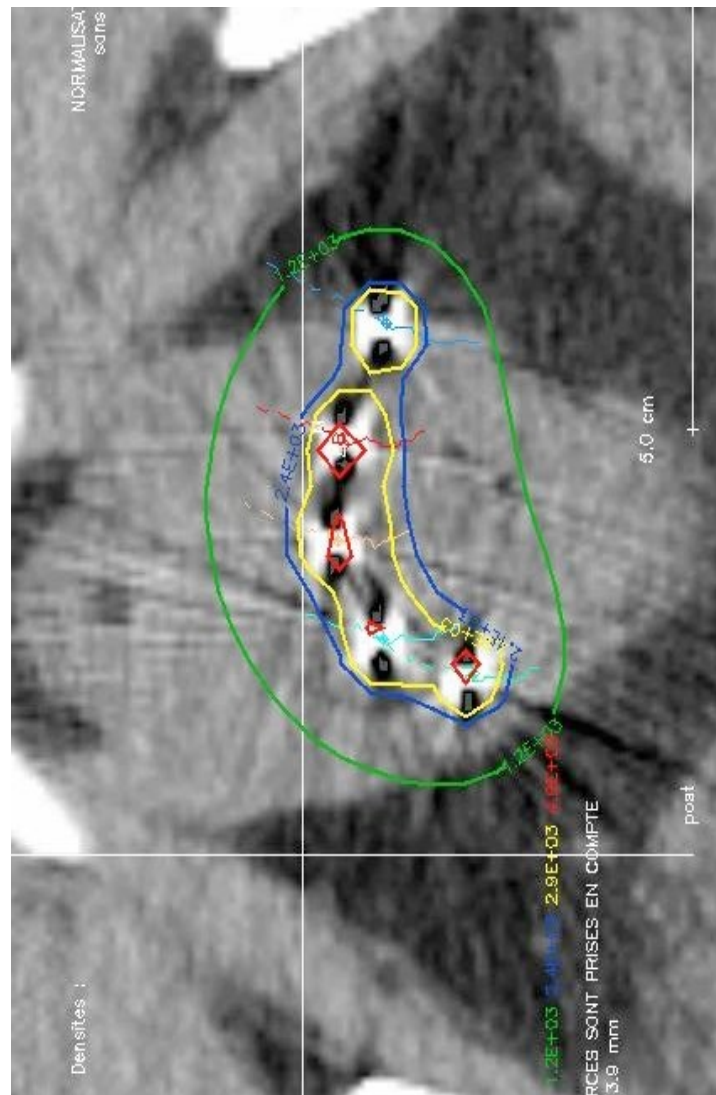
DOSE .G:
P.BASE: %P1
D.BASE: 31.838
IS.REF%
D.REF:
F.MULT:

48.960	28.800
24.480	12.240

DOSE/GRAY

T: 1 J 0.0 H

DROITE



CONCLUSIONS