

Syrian private University

Medical Faculty

Department of Surgery

Principles of cancer surgery

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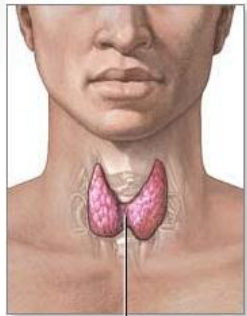


Rules of Surgery

1. Diagnosis .
2. Removal of primary disease.
3. Removal of metastatic disease.
4. Palliation .
5. Prevention and reconstruction.

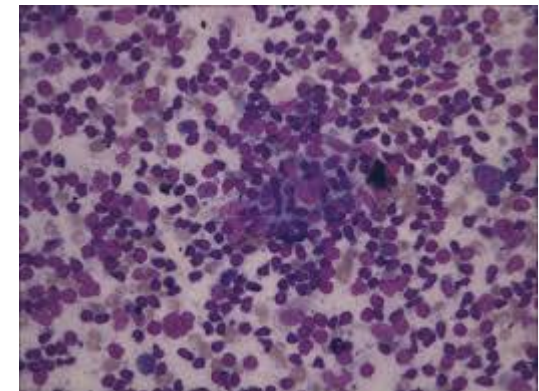
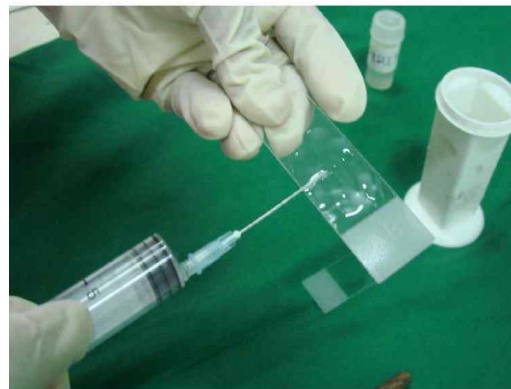
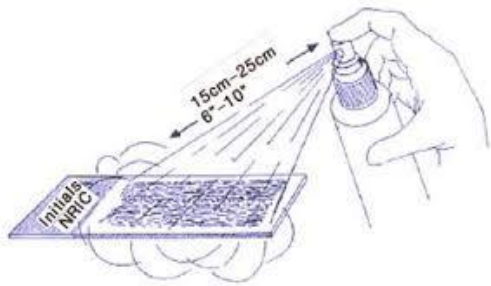
Diagnosis and staging

1. Diagnosis of cancer must be made before definitive surgery is carried out .
2. Malignant ascites , aspiration and cytology .
3. FNA .
4. Needle Biopsy .
5. Surgical Biopsy (Lymph node).
6. Excision biopsy .
7. Endoscopy (Abdomen , Thoracic , Cystoscopy).
8. Ultrasound & Laparoscopic ultrasound (intrahepatic metastasis).
9. Sentinel node biopsy in melanoma and breast cancer .
Radiolabelled colloid is injected into or around the primary tumor and the regional lymph node tumor is then scanned with a gamma camera .



Thyroid gland

Fine needle



مراحل إجراء الخزعة الخلوية بالإبرة Fine Needle Aspiration

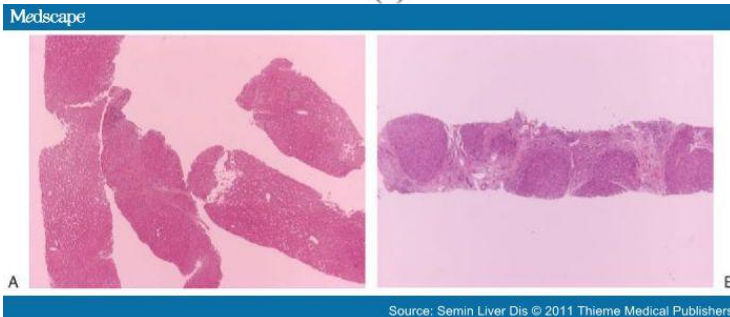
Needle Biopsy : Medullary thyroid cancer



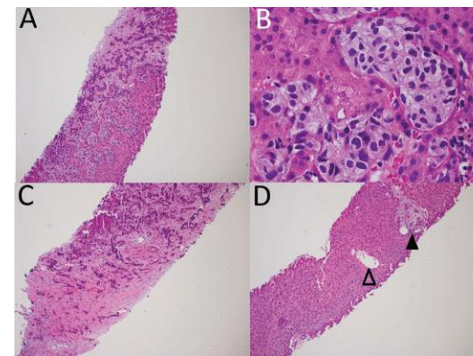
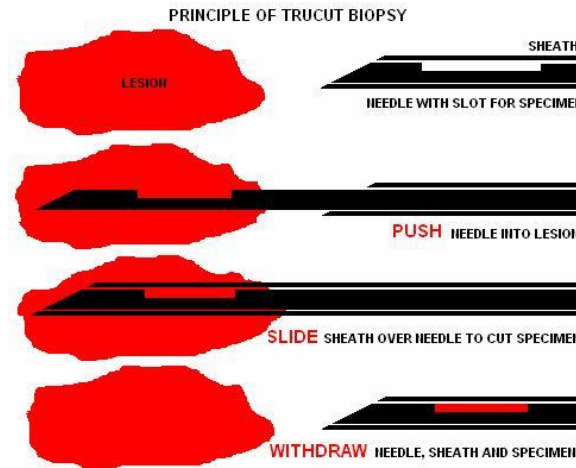
(a)



(b)



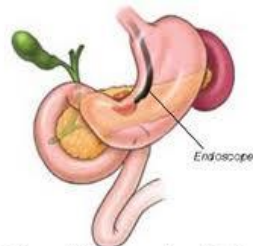
Source: Semin Liver Dis © 2011 Thieme Medical Publishers



Excision biopsy

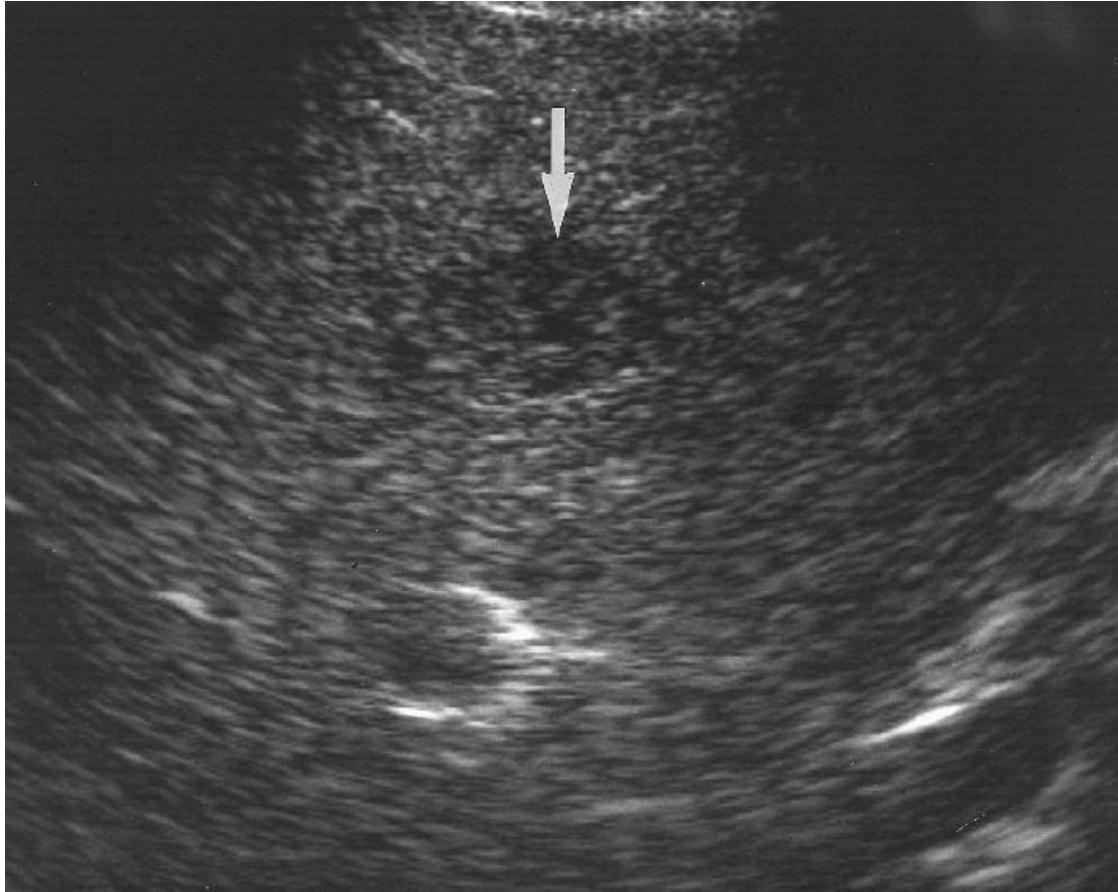


Endoscopic Biopsy



Physicians guide the endoscope through the stomach to provide visualization of a pancreatic tumor(s).





Solitary Metastases from Colon Carcinoma

CT Scan Hepatic Metastasis

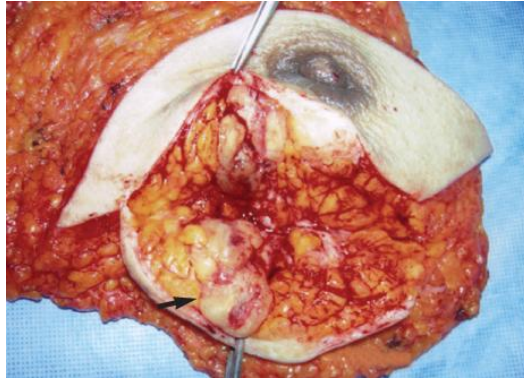
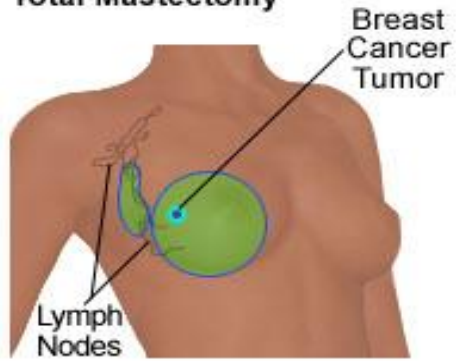


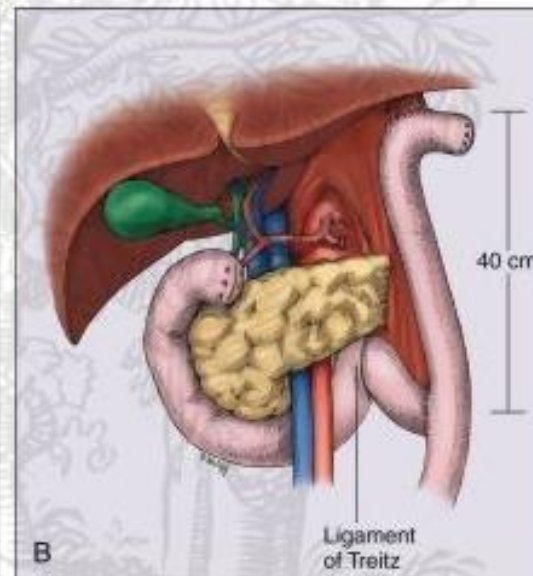
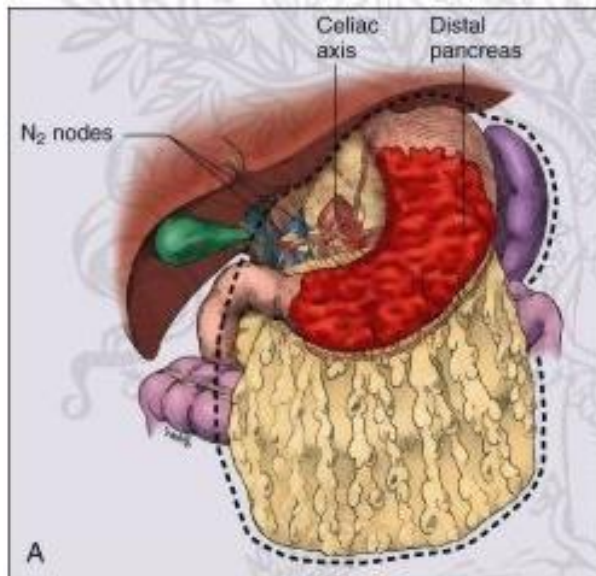
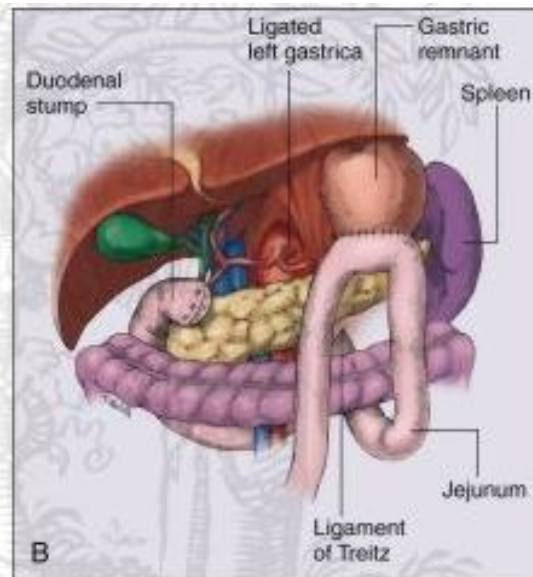
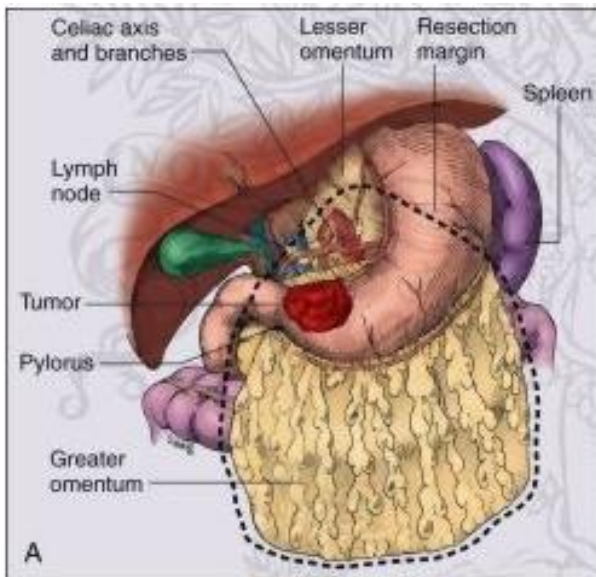


Aim of the treatment

- The aim of treatment will be growth control rather than the extirpation of every last cancer cell.
- Patients will live with their cancers, perhaps for years.
- They will die with cancer, but not necessarily of cancer.
- The distinction between curative and palliative therapy seems somewhat arbitrary.

Total Mastectomy





Therapeutic decision making and the multidisciplinary team

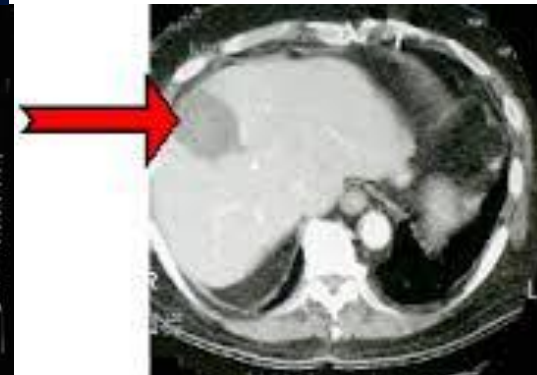
- Site-specialist surgeon
- Surgical oncologist
- Plastic and reconstructive surgeon
- Clinical oncologist/radiotherapist
- Medical oncologist
- Diagnostic radiologist
- Pathologist
- Speech therapist
- Physiotherapist
- Prosthetist
- Clinical nurse specialist (rehabilitation, supportive care)
- Social worker/counsellor

Removal of primary disease

- ✓ Principle of local control .
- ✓ Radical surgery for cancer , involves removal of the primary tumor and as much of the surrounding tissue and lymph node.
- ✓ High-quality, meticulous surgery.

Removal of metastatic disease

- liver metastases.
- Cryotherapy (N₂O₂ , Liquid Nitrogen) .
- Radiofrequency energy.
- Pulmonary resection for isolated lung metastases (renal cell carcinoma).



Palliation

Palliative treatment has as its goal the relief of symptoms :

- Removal of the primary may increase the patient's quality of life but will have little effect on the ultimate outcome (Colonic tumors) , some times bypass enough , dilatation and stenting .
- To alleviate symptoms of obstruction caused by an inoperable gastric outlet tumor (gastro- intestinal anastomosis) .
- To alleviate symptoms of obstruction caused by an inoperable caecal cancer (ilio transverse colon anastomosis) .
- Bypassing an unresectable carcinoma at the head of the pancreas by cholecysto- or choledochojejunostomy to alleviate jaundice & gastro-intestinal anastomosis to alleviate late duodenal obstruction .

End-of-life care

- Concerns the last few months of a patient's life.
- Symptom control .
- The sense of approaching death .

Issues at the end of life

- Appropriateness of active intervention
- Euthanasia (القتل الرحيم).
- Physician-assisted suicide
- Living wills (الوصية).
- Bereavement (التعاطف).
- Spirituality (الدين و الروحانية).
- Support to allow death at home.
- The problem of the medicalisation of death.

