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CANCERCARE, P.C.

Specializing in Cancer and Blood Disorders

Cancer Facts - In No Particular Order



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Cancer of Unknown Origin (adeno unknown origin)

- Biopsy is positive
- Source cannot be determined
- Look at pattern of metastases
- Special stains of the cancer cells
- New genetic testing
- Squamous of head and neck vs. other types

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Cancer of Unknown Origin

- Insurance issues
- Family/second opinion issues
- Treat what is treatable

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Cancer and Thrombosis

- Very common (venous usually)
- Secondary to cancer
- Secondary to treatment
- Secondary to high platelet counts
- Secondary to immobility
- Harder to treat than non-cancer related

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Cancer Tumor Markers

- Measuring products in cancer cells and blood
- PSA for prostate
- CA125 for ovary
- CA19-9 for pancreas
- CA27/29 for breast
- AFP and HCG for testicular
- 5HIAA for carcinoid (urine)
- Immunoglobulins for myeloma and amyloidosis
- CEA for colon and other GI



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Cancer Tumor Markers

- Future – measuring circulating cancer DNA
- Helps with diagnosis
- Helps with treatment response (? very early)
- Overlap of some markers

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Metastases

- A specific cancer characteristic
- Small cell lung vs. pheochromocytoma
- Not random events in blood flow
- Not all metastases implant
- Pattern of metastases can be specific for given cancer
- Brain –lung, melanoma, some breast early, some late
- Liver – especially GI but many others
- Adrenal – from lung

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Metastases

- Ovary, peritoneum, liver & brain - rare
- Breast – boney only
- Prostate – bone/nodes
- Lung and skin – very bad prognosis despite size
- Head and Neck – usually local
- Breast lobular – abdominal cavity and liver
- Breast ductal – nodal and bones

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Flow Cytometry Studies

- Analyses 1,000,000 cells
- Are they clonal?
- Done on blood or marrow
- CLL or lymphoma vs. benign causes

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Paraneoplastic Syndrome

- Indirect affects of the cancer
- Low sodium – SIADH – small cell
- High calcium – squamous cell cancer
- Cerebellar atrophy – antibodies ovarian
- Eaton Lambert paralysis – small cell lung
- Hypertrophic pulmonary osteoarthropathy
- Aplastic anemia - thymoma

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Sanctuaries

- Brain – many (blood-brain barrier)
- Testis – leukemia/lymphoma

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Carcinomatosis Meningitis

- Cancer cells in spinal fluid
- No masses
- Cranial nerve involvement (diplopia)
- Leukemia especially, but lymphoma and breast

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Cancer Pain

- Regular
- Neuropathic
- Narcotics
 - Immediate release pills
 - Times release pills
 - Patch
 - Sublingual
 - IV

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Cancer Cachexia

- Common
- Causes poorly defined
- Minimal benefits of IV feeding
- Chemo seldom with weight loss

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Scanning

- CT – hundred of x-ray views combined
- MRI – change in magnetic fields
- PET scanning – uptake of radioactive glucose

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Types of Cancer

- Carcinoma – gland cancer
- Sarcoma – support structure tissues
- Lymphoma – lymph node/lymphocyte tissue

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Growth Factors

- Estrogen one example
- Many kinds and sources
 - Endocrine
 - Autocrine
- GCSF raises white cell count
- Erythropoeitin raises red cell count
- Still looking for platelet stimulant

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Bone Structures

- Common site of metastasis
- Calcium/vitamin D
- Biphosphonates - Zometa

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Response of Cancer to Treatment (systemic)

- Assumed uniform
- Usually so with chemo/exceptions
- Less so with targeted therapy