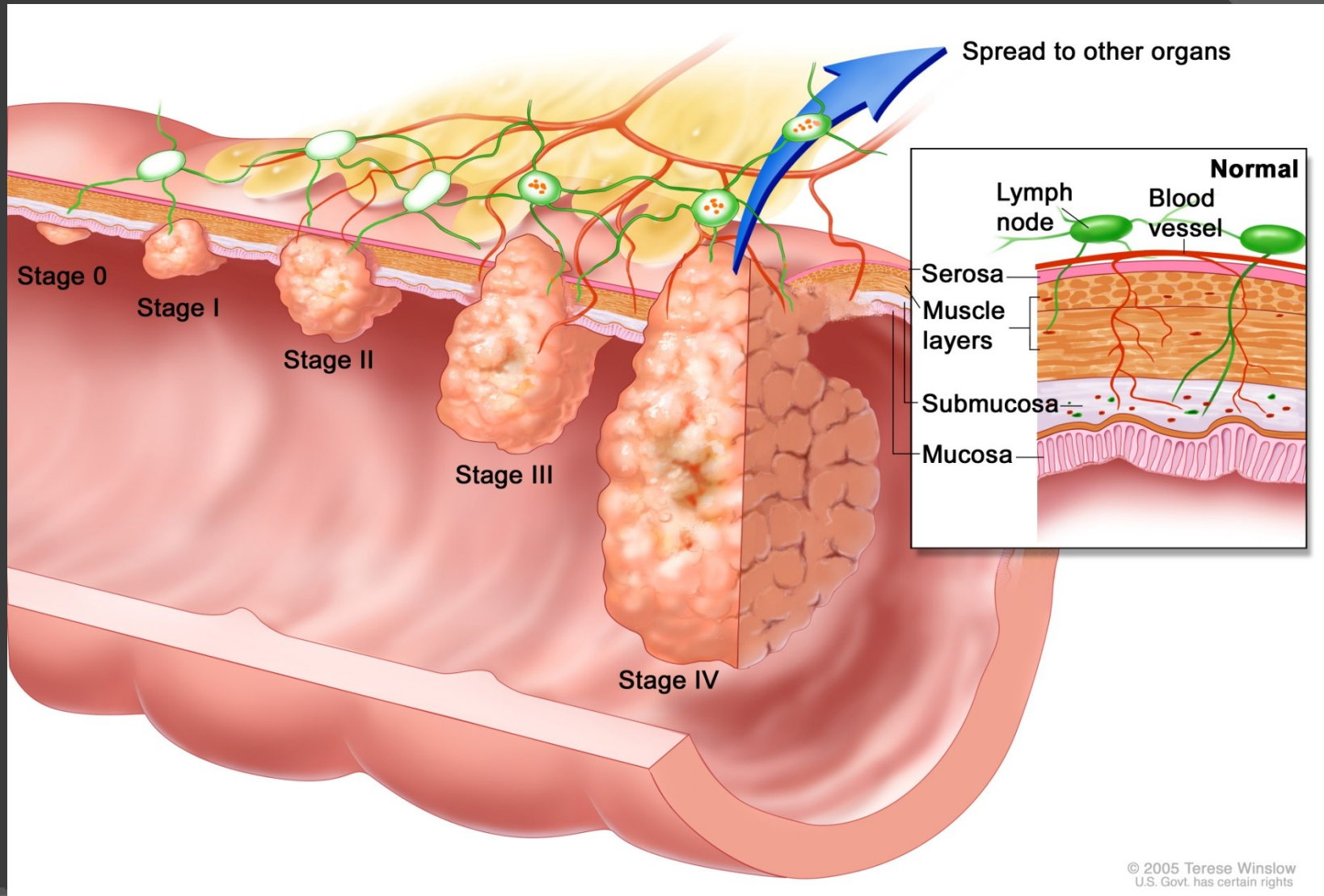


# CANCER SPECIFIC NATURAL THERAPIES- COLORECTAL AND LUNG CANCER

## BOTANICAL AND NUTRIENT TREATMENT STRATEGIES AND PROTOCOLS FOR COLORECTAL AND LUNG CANCER

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# Colon Cancer- Overview



# Colon Cancer- what is goal?

- ⦿ Prevention
- ⦿ Co-treatment- Surgery/Chemo/Radiation
- ⦿ Prevention of Recurrence/ metastasis



# Prevention of Colon Cancer

- ⦿ In addition to the foundation of diet and lifestyle habits
  - Calcium carbonate
  - Vitamin D
  - Fiber
  - Anti-inflammatory herbs/ foods
  - Normalization of flora

Colonoscopy! FHx= 6x inc risk/ UC= 40x inc risk

# Co Treatment- Overview

- ◎ Chemotherapies commonly used
  - FOLFOX: 5-FU, Oxaliplatin
  - FOLFIRI: 5-FU, Irinotecan
  - Avastin:
  - Xeloda:
  - Erbitux

Emphasis should be on mitigating side effects and potentiating efficacy of conventional treatment, NOT direct anti-cancer effects in most cases.

# In General... in patients with colon cancer

- ⦿ Melatonin 1-20mg
- ⦿ Vitamin D
- ⦿ MV without Copper
- ⦿ Trametes versicolor (formerly Coriolus) (3 grams daily of hot water extract). Can use other mushrooms... less clinical data
- ⦿ Bone marrow support
  - Bone broth/ stock
    - Add Astragalus
    - Shitake/ Maitake/ Coriolus



# Pre-surgical Considerations for Colon Cancer

- ◎ Cimetidine (Tagamet)- 800mg
  - five days pre-operative and two days post-operative, 400 mg bid
  - Three year mortality: 41% vs. 7%
    - Adams WJ, Morris DL. Short-course cimetidine and survival with colorectal cancer. *Lancet*. 1994 Dec 24-31;344(8939-8940):1768-9.
- ◎ Avoidance of herbs affecting CYP450 enzymes
  - Hypericum
  - Kava
  - Milk Thistle

# Post Surgical Support

- ⦿ Gentle foods:
  - stock with well cooked veggies
    - Add herbs (Thyme, Turmeric, etc), astragalus, mushrooms, other?
  - Yogurt
  - Apple sauce
  - Strained soups– carrot, squash, etc.
- ⦿ Avoid bulking of stool
  - Magnesium or stool softener if needed
- ⦿ Probiotics– Without
- ⦿ Low/ no residue diet (Smooth foods)
  - Very little fiber
  - Dieticians are well acquainted with this



# 5-Fluorouracil (5-FU)

## Stomatitis

- Aloe vera inner leaf gel
- Pyridoxine— 200-400mg daily without Folate.
- Keep the mouth cold during infusion (ice cubes)

## ⊙ Gastritis (under appreciated!)

- DHA has been shown to lessen intestinal lesions in rats receiving 5-FU ([Eur J Gastroenterol 2004 May;16\(5\):479-85](#))
- Deglycyrrhizinated Licorice/ Slippery Elm --chewable

# Oxaliplatin

- ⦿ Neuropathy- cold sensitivity-- KEEP HANDS WARM
- ⦿ IV Calcium/ magnesium before and after infusion—usually included in conventional tx
- ⦿ L-glutamine- 20-30 grams daily
- ⦿ Acetyl-L-Carnitine:1500-3000 mg daily (interference unknown, use when no longer receiving platinum compound) Gamelin L, Boisdron-Celle M, Delva R, et al. Clin Cancer Res. 2004;10:4055-4061.

# Neuropathies in general: ACL

- ◎ Acetyl L Carnitine: 1500-300mg daily
- ◎ Maestri A, De Pasquale Ceratti A, Cundari S, et al. A pilot study on the effect of acetyl-L-carnitine in paclitaxel- and cisplatin induced peripheral neuropathy. Tumori 2005 Mar-Apr; 91 (2):135-8
- ◎ Bianchi G, Vitali G, Caraceni A, et al. Symptomatic and neurophysiological responses of paclitaxel- or cisplatin-induced neuropathy to oral acetyl-L-carnitine. Eur J Cancer 2005 Aug;41 (12): 1746-50.

# Irinotecan

- ⦿ Diarrhea (early=within 24 hr of infusion; late = after 24 hours, peaking about day 11)
  - Baking soda(sodium bicarb): ¼ tsp bid or tid
    - Can obtain a potassium/sodium mix as supplement to balance electrolytes
  - Soluble fiber: apple pectin, Benefiber,
  - Monitor for dehydration/ electrolyte imbalance- may need to do Imodium if severe

# Bevacizumab (Avastin)

- ⦿ Monoclonal Antibody to VEGF
- ⦿ Hypertension
  - Hawthorne as heart tonic
  - Adequate cal/mag/potassium
- ⦿ Bleeding(35%) $\leftrightarrow$ Clotting (14%)
  - **Avoid Blood thinning agents in High dose:**
    - Proteolytic Enzymes/ Bromelain
    - Garlic (as supplement)– can eat it though
    - Vit E
    - Red Clover (Trifolium)

# Xeloda

- ⊙ Palmar-Plantar Erythrodysesthenia=  
Hand- foot syndrome
  - Pyrodoxine: 200-400 mg daily
- ⊙ Gastritis—
  - Slippery Elm (can obtain lozenges easily)
  - DGL
  - Can also juice cabbage, if tolerated
  - Robert's formula:

# Cetuximab(Erbitux)

- ⦿ Monoclonal Antibody to Epidermal Growth Factor Receptor
  - Rash, pruritis, diarrhea, headache



# Natural Agents for Prevention of Recurrence–

- ① Trametes Versicolor—3.0 grams of Hot Water Extract daily→ 5 Mushroom Blend→ Maitake D-fraction
- ① Curcumin- more than 3.5 grams daily
- ① Melatonin- dose depends on stage of disease

# Natural Agents for Prevention of Recurrence–

- ⦿ Vitamin D (D3 or calcitriol prescription)
- ⦿ Modified Citrus Pectin- if no mets to liver
  - Divided dose: 15 grams daily
- ⦿ Honso 48= Shi Quan Da BU Tang- shown to prevent mets to liver in animal models
- ⦿ Green Tea- a lot! – 300mg capsule (50% EGCG)= 2 cups of tea

# And the kitchen sink...

- ⦿ Cimetidine (Tagamet)- 800mg daily
- ⦿ D-limonene (blocks K-ras through metabolite perillyl alcohol)
- ⦿ Lower copper? Ceruloplasmin under....

# Lung Cancer- Overview

- ⦿ Types of Lung cancer-
- ⦿ Non Small Cell Lung Cancer
  - Adenocarcinoma
  - Squamous Cell Carcinoma
  - Bronchioalviolar
  - Large cell/undifferentiated
- ⦿ Small Cell
  - Smoker's

# Lung Cancer--The Basics

- ⦿ Make sure to Address the Basics:
- ⦿ Weakness- L- Carnitine (6 grams daily)
- ⦿ Sleep disturbance- Melatonin (20 mg qhs)
- ⦿ Cachexia- Protein, BCAA, L-Carnitine, CALORIES + resistive exercise needed.
- ⦿ Anxiety-
- ⦿ Shortness of Breath- lung tonic herbs
  - Inula, horehound, Verbascum thap., small amt Trifolium
- ⦿ Pain- Check to ensure adequately addressed

# Cisplatin/ Carboplatin

## ⦿ Neuropathy

- Vitamin E: 400-800 IU daily

## ⦿ Nephrotoxicity

- Ginkgo
- Corn Silk/Marshmallow

## ⦿ Constipation/ Diarrhea- educate patient on use of:

- Calcium- constipating
- Magnesium- laxative

# Paclitaxel(Taxol)/ Docetaxel(Taxotere)

AVOID  
QUERCETIN

- ⊙ Neuropathy
  - L-glutamine 10 grams tid x4 days
- ⊙ Stomatitis– Keep mouth cold at infusion and that night.
- ⊙ Joint/ Muscle pain
  - L-glutamine 10 grams tid x 4 days, beginning 24 hours after infusion
- ⊙ Sleeplessness (from steroid, really)
  - SeriPhos
  - Cortisol Manager



# Gemcitabine (Gemzar)

## ⦿ Ginkgo

- Toxicol Appl Pharmacol 2004 Apr 1;196(1): 169-75

## ⦿ Myelosuppression, especially platelets

- Bone broth/ stock
- Sesame Oil- 1 tsp three times daily (more?)
- Marrow Plus (Combination of Chinese herbs, including salvia miltiorrhiza)
- Immune support:
  - Arabinogalactans
  - Astragalus
  - Mushrooms: Any

# Erlotinib(Tarceva) and (Iressa)

## ◎ Tarceva:

- Inhibits intracellular signaling of Epidermal Growth Factor Receptor (EGFR) Tyrosine Kinase (TK)
  - Acne-like rash
  - Diarrhea
  - CYP3A4 and to a lesser extent by CYP1A2

## ◎ Gefitinib

- Blocks intracellular phosphorylation of EGFR TK, + other TK's (?)
  - Diarrhea, acne, rash
  - CYP3A4,

# Radiotherapy tx to lung(s)

- ⦿ Esophagitis- if in field of RT, may get irritated
  - ⦿ DGL; slippery elm, aloe vera inner leaf
  
- ⦿ Oxygenate- walk/pace while waiting...
  
- ⦿ Radiation Dermatitis
  - Aloe vera and calendula topically
  - Avoid oil based topical creams

# Radiation Treatment Contraindications

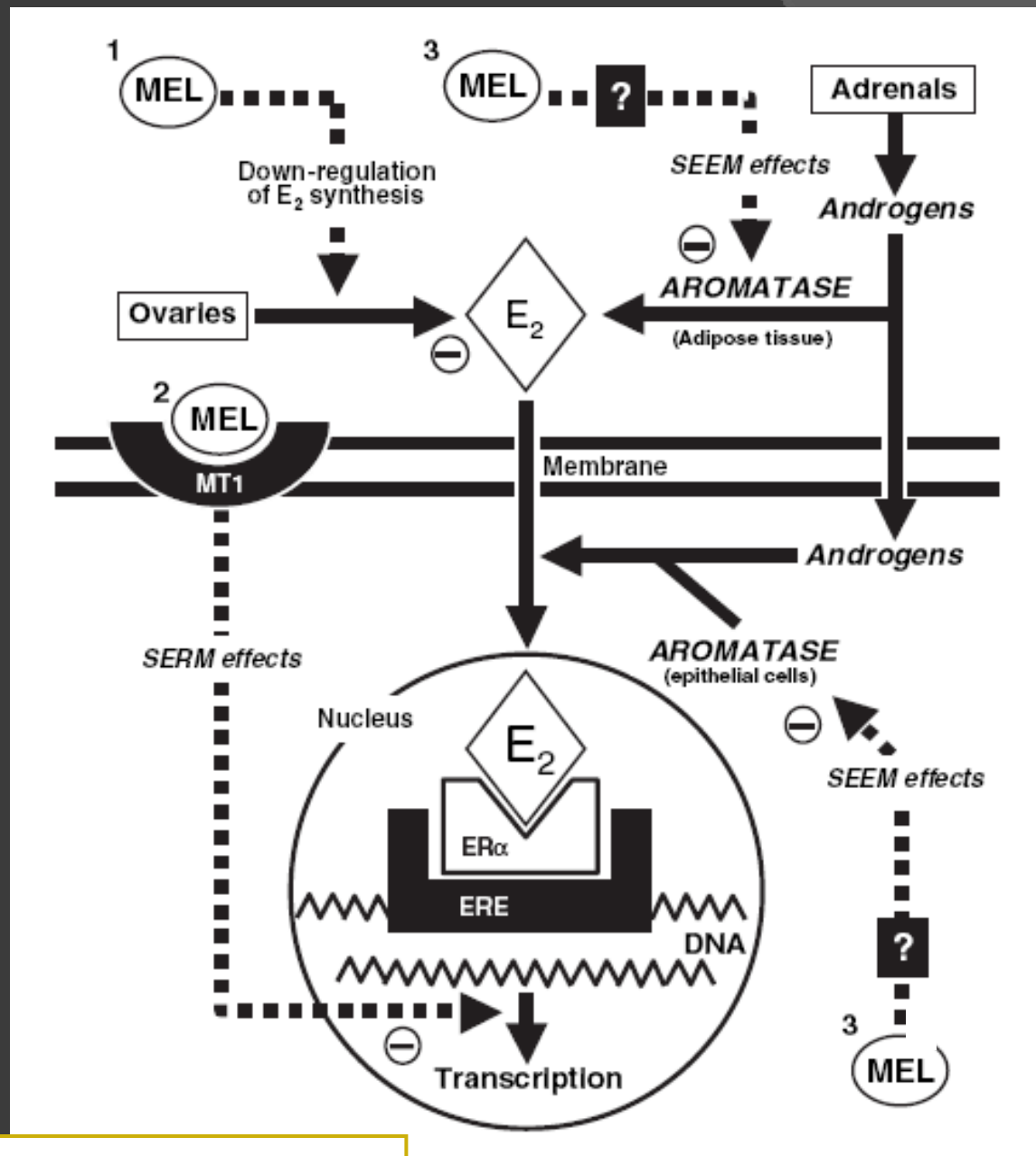
## ⦿ Avoid

- Antioxidants--Evidence (and hypothesis) for “antioxidant” interference stronger than with chemo’s
- Vitamin E
- NAC or Lipoic Acid
- Glutathione

# Natural Agents to Consider

- ⦿ Melatonin 20mg qhs
- ⦿ Curcumin- more than 3.6 grams with oil
- ⦿ Mushrooms– cordyceps, 5-mushroom blend, maitake D-fraction
- ⦿ Vitamin D- 1,25 form= calcitriol
- ⦿ D-limonene- How much?
- ⦿ Lung Herbs: Inula, Verbascum, Marrubium vulgaris,
  - Trifolium- mb... very small amounts

# Melatonin and ER+ cancers



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