SYMPTOM MANAGEMENT OF NEUROENDOCRINE TUMORS

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Neuroendocrine cells receive synaptic signals from other neurons and produce action potentials... yet secrete a hormone into the bloodstream. Thus electrical signals are converted into hormonal signals.
NEURO-ENDOCRINE CELLS SECRETE HORMONES
FREQUENT DELAYS IN DIAGNOSIS

Evolution of Terminology & Classification: NETs Are Often Diagnosed Late:

- Estimated time to diagnosis: 5 to 7 yr
- Vague abdominal symptoms
- Diarrhea
- Flushing
- Metastases
- Primary tumor growth
- Death

*Symptoms of carcinoid syndrome
TYPES OF EXCESS HORMONE SYMPTOMS

• **Gastrinoma** (*gastrin*) – Acid reflux, abdominal pain, excess fat in stools, weight loss

• **Glucagonoma** (*glucagon*) – High blood sugar, mouth sores, anemia, weight loss

• **Insulinoma** (*insulin*) – Low blood sugar (which can cause confusion/shakiness)
SYMPTOMS OF CARCINOID SYNDROME

- **Flushing** - reddening of chest/face, can extend through body
- **Abdominal cramps**
- **Diarrhea**
- **Loss or reduction of appetite**
- **Fast heart rate**
- **Tiredness**
- **Carcinoid heart disease**
MANAGING FLUSHING

- Nutrition
- Stress
NUTRITION TIPS

• AVOID FOODS WITH AMINES – AGED CHEESES, ALCOHOLIC BEVERAGES, SMOKED OR SALTED FOODS, SOY PRODUCTS, CHOCOLATE, COFFEE
• AVOID HOT SPICES
• TRY TO INCREASE FRUITS, VEGETABLES, WHOLE GRAINS
• TRY TO INCREASE PROTEIN RICH FOODS
SYMPTOMS OF BOWEL OBSTRUCTION

- Nausea, vomiting
- Abdominal pain
- Bloating
- Constipation
SOMATOSTATIN ANALOGS

Octreotide

Lanreotide
ANTI-DIARRHEA MEDICATION

- Imodium
- Lomotil
- XermeLO - Tryptophan hydroxylase inhibitor – approved for Carcinoid syndrome diarrhea in combination with Somatostatin
SYMPTOMS COLLECTED ON CLARINET STUDY

- Physical functioning
- Role functioning
- Emotional functioning
- Cognitive functioning
- Social functioning
- Fatigue
- Nausea/vomiting
- Pain
- Dyspnea
- Insomnia
- Appetite loss
- Constipation
- Diarrhea
- Financial difficulties
- Endocrine sx
- GI sx
- Treatment sx
- Weight gain
- Disease related worries
- Muscle/bone pain sx
- Body image
- Sexual function
CONCLUSION

- There are strategies to control/improve symptoms
- Use the resources at your appointment — your physician, nurse, nutritionist, social worker, care coordinator
- We are all here for you!