



## Carcinoid Tumors

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- Which of the following hormones is produced excessively by carcinoid tumors?
  - Insulin
  - Serotonin
  - Parathyroid
  - Antidiuretic hormone
- The mainstay of treatment for managing patients with unresectable carcinoid tumors is
  - Radiation.
  - Biotherapy.
  - Chemotherapy.
  - Somatostatin analogs.
- Jerry, a 56-year-old Caucasian man, recently has been diagnosed with a carcinoid tumor. Jerry confides that he has never heard of this kind of cancer and questions you about the origin of his tumor. Your response is based on the fact that most carcinoid tumors originate from the
  - Urinary system.
  - Digestive system.
  - Respiratory system.
  - Central nervous system.
- Jerry's physician has told him that tests will be ordered as part of his diagnostic evaluation for carcinoid tumor of the small bowel. Jerry asks the nurse what type of tests he should expect. Jerry most likely will have which of the following tests first?
  - Magnetic resonance imaging (MRI)
  - Computed tomography (CT) scan
  - Positron emission tomography (PET) scan
  - Octreotide scan
- When considering the education plan for Jerry, including the most common side effects associated with carcinoid syndrome is important. In addition to cutaneous flushing and bronchospasm, which of the following would the nurse be sure to instruct Jerry to expect?
  - Tinnitus
  - Diarrhea
  - Peripheral neuropathy
  - Lower-extremity edema
- Jerry and his wife ask the nurse which laboratory test most likely will indicate the presence of a carcinoid tumor. The correct answer is
  - Chromogranin A (CgA).
  - Serum carcinoembryonic antigen (CEA) level.
  - Creatinine clearance.
  - Serum protein electrophoresis.
- Mrs. Jones is scheduled to receive her first dose of octreotide (Sandostatin®, Novartis Pharmaceuticals Corporation, East Hanover, NJ) as part of her treatment for carcinoid tumor. The nurse will explain that the goal of this therapy is to
  - Prevent long-term fibrosis.
  - Inhibit blood supply to the tumor.
  - Control the symptoms of carcinoid.
  - Enhance the effects of radiation therapy.
- Mrs. Jones responded well to subcutaneous (SQ) octreotide therapy with a decrease in her symptoms of carcinoid tumor. As a result, the physician is planning to start her on Sandostatin LAR® Depot (Novartis Pharmaceuticals Corporation). As the nurse caring for Mrs. Jones, you understand that she will
  - Discontinue her SQ injections immediately.
  - Discontinue her SQ injections one week after starting the LAR dose.
  - Continue her octreotide SQ injections for four weeks at a lower dose.
  - Continue her octreotide SQ injections for two weeks at the same dose.
- The multidisciplinary team is discussing the possibility of chemoembolization on Mr. Smith, who has a large carcinoid tumor. The nurse understands that the most optimal candidate for this procedure is a patient who has
  - Liver-dominant carcinoid metastasis.
  - A surgically resectable gastric carcinoid.
  - A primary bronchial carcinoid.
  - A mediastinal mass positive for T cell lymphoblastic lymphoma.
- The primary complication resulting from carcinoid tumors is
  - Bowel ischemia.
  - Pulmonary fibrosis.
  - A cardiac-related event.
  - A secondary malignancy.
- The diagnostic test of choice for initially identifying cardiac valve insufficiencies in patients with a carcinoid tumor is
  - Stress test.
  - Cardiac enzymes.
  - Echocardiography.
  - Cardiac catheterization.
- The cardiovascular complications often seen with carcinoid tumors stem from
  - Long-term use of octreotide.
  - Anatomic changes in the cardiac valves.
  - Fluid accumulation in the pericardial sac.
  - Cardiac fatigue secondary to overstimulation.

### Answers

**Question 1:** The correct answer is b, serotonin. Carcinoid tumors are neoplasms that secrete active substances such as serotonin, prostaglandins, kinins, and histamine into the circulatory system. Serotonin is commonly secreted by enterochromaffin cells, which are glandular endocrine-hormone

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