

Affects the treatment of pancreatic cancer

Technology



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How the technology affects the Treatment of Pancreatic Cancer? Abstract As the technology world grieves figuring visionary and Apple, Inc. Co-founder Steve Jobs, it's worth taking a closer look at the disease he publicly battled. This paper will discuss the detailed and information about pancreatic cancer and how the technology helps to detect, prevent and cure the disease. This paper will show different statistics of pancreatic cancer at different stages of the cancer. American Cancer Society put together statistics as a part of their " Learn about Cancer " tab on their website.

Primary findings show that survival rates are low even at the earliest stage and continue to become even lower at the later stages. Pancreatic Cancer Pancreatic cancer is the fourth-leading cause of death from cancer In the united States, after lung, colon and breast cancer. The lifetime risk of developing it is about 1 in 71 . This year, about 44, 030 people will be diagnosed with pancreatic cancer, and the disease will kill about 37, 660 people, according to the American Cancer Society. About 95 percent of people with pancreatic cancer die from it, experts say.

It's so deadly because during the early stages, when the tumor would be most treatable, there are usually no symptoms. It tends to be discovered at advanced stages when abdominal pain or jaundice may result. Presently, there are no general screening tools. (American Cancer Society, 201 3) Rates of pancreatic cancer have dropped slightly among men and women over the past 15 to 25 years. As people age, the risk of developing pancreatic cancer goes up. Most patients are older than 45, and nearly 90% are older than 55. The average age at diagnosis is 72.

Men having a slightly higher likelihood of developing pancreatic cancer than women, which may partly mocked than women, the gender gap was wider.

There is also a noted association with race: African-Americans are more likely to develop pancreatic cancer than whites. Doctors don't know why, but speculate that higher rates of men smoking and having diabetes, and women being overweight, may contribute to that association. (American Cancer Society, 2013) People with cancer of the pancreas eventually develop pain in the upper abdomen that sometimes spreads to the back and may become worse after eating or lying down.

They also may experience nausea, loss of appetite, weight loss, and weakness. If the tumor blocks the common bile duct so that bile cannot pass into the small intestine, they develop Jaundice (OWN-dish), a condition in which the skin and whites of the eyes turn yellow. Islet cell cancer can cause the pancreas to make too much insulin or other hormones. As a result, the person may feel weak or dizzy and experience chills, muscle spasms, or diarrhea. (American Cancer Society, 2013) The pancreas is an oblong organ that lies deep in the abdomen, and is an integral part of both the digestive and endocrine system.

It secretes hormones to regulate the body and also digestive enzymes to break down DOD. There are two types of pancreatic cancer: exocrine tumors and endocrine tumors. Exocrine tumors are the majority of pancreatic cancers, and the most common form is called demarcation, which begin in gland cells, usually in the ducts of the pancreas. Seaway died from this kind of pancreatic cancer. These tumors tend to be more aggressive than neuroscience tumors, the kind that Jobs had, but if caught early enough they

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can be treated effectively with surgery. Sarah Thayer, et al, 2013) Pancreatic neuroscience tumors constitute only 1% of all pancreatic cancers. They can be benign or malignant, but the distinction is often unclear and sometimes apparent only when the cancer has spread beyond the pancreas. The five-year survival rate for neuroscience tumors can range from 50% to 80%, compared with less than 5% for demarcation. More advanced tumors have a higher risk of recurrence, and can spread to the liver, said Dir. Steven Libretti, pancreatic cancer expert and director of the Interfere-Einstein Center for Cancer Care in the Bronx. Sarah Thayer, et al, 2013) What are the treatments for pancreatic cancer? Combination of treatment methods may be used to treat pancreatic cancer. These may include surgery, radiation therapy, and chemotherapy. There are also several palliative care treatments that may be used to treat pain that may result when a tumor presses on nerves or other organs near the pancreas. Palliative treatments include oral and incapable medications, cutting the nerves, radiation therapy, and chemotherapy. (Sarah Thayer, et al, 2013) There are a number of surgical procedures used to treat pancreatic cancer.

These surgeries are complex procedures and should only be performed by a surgical oncologist who is highly experienced in the procedure.) The Whipped procedure (removal of the head of the pancreas, gallbladder, part of the stomach, part of the small intestine, and the bile ducts). 2) Total appendectomy (removal of the whole pancreas, part of the stomach, part of the small intestine, the common bile duct, the gallbladder, the spleen, and nearby lymph nodes). 3) Distal appendectomy (removal of the body and tail of the pancreas and the spleen). F the cancer has spread and is at an

advanced stage, surgical billiard that is blocking the small intestine.

Endoscopies Steen placement (placing of a Steen to rain bile in an area where cancer has blocked the bile duct)and gastric bypass (sewing the stomach directly to the small intestine to allow the patient to eat if the tumor is blocking the flow of food from the stomach)can be done too. (Sarah Thayer, et al, 2013) Radiotherapy is also known as radiation therapy, radiation oncology and CRT. It is used for treating cancer, thyroid disorders and some blood disorders.

External beam radiation therapy may be used to shrink tumors before surgery, to kill remaining pancreatic cancer cells after surgery, or to relieve pain by shrinking tumors that cannot be removed entirely. Chemotherapy may be used to treat pancreatic cancer that has spread to areas outside the gland. It may also be used in combination with radiation therapy to shrink tumors that cannot be removed entirely. There are several palliative treatments that can be used to treat pain that may result when a tumor presses on nerves or other organs near the pancreas.

These include oral medications, medications injected into the area around the affected area, cutting the nerves to block the feeling of pain, and radiation therapy to relieve pain by shrinking the tumor. (Sarah Thayer, et al, 2013) Pancreatic cancer is usually controllable only through removal by surgery, and only if found before it has spread, according to the National Cancer Institute. Palliative care can help a patient's quality of life if the disease has spread. Two new drugs approved this year may help patients with pancreatic neuroscience tumors.

They are believed to suppress the blood supply and metabolism of the tumor cells. (Nathan, Avid G. , 2007) Overcurious, marketed by Innovations as Pollinator, received U. S. Food and Drug Administration approval to treat pancreatic neuroendocrine tumors and prevents transplant rejection. Potential side effects are serious, however: lung or breathing problems, infections and renal failure, which may lead to death. Sinusitis emulate, marketed by Pfizer as Student, is prescribed for the treatment of pancreatic neuroendocrine tumors, as well as, kidney cancer and GIST, a rare cancer of the bowel, esophagi or stomach.

As with overcurious, there are risks to consider: it can cause liver problems and death. .(Nathan, Avid G. , 2007) Steve Jobs vs.. Pancreatic Cancer In 2004, Jobs underwent surgery to remove the cancer from his pancreas. In 2009, after taking another leave of absence from Apple, Jobs had a liver transplant in an effort to retain as much of his organ function as possible after his cancer had spread beyond the pancreas. Jobs also underwent a liver transplant in Tennessee in 2009, which is "cutting edge stuff" for when neuroendocrine tumors spread, said Dir.

Mage Risk, director of the Chronic Abdominal Pain Center at the Cleveland Clinic who specializes in gastroenteritis and haplogly. In January, he took a third leave from the company before resigning as CEO in August. Jobs wrote in a letter to the Apple board of directors on August 24 saying "I have always said if there ever came a day when I could no longer meet my duties and expectations as Apple's CEO, I would be the first to let you know, unfortunately, that day has come." . (Miller) According to experts, Jobs' was an uphill medical battle. He not only had cancer, he was battling the immune <https://assignbuster.com/affects-the-treatment-of-pancreatic-cancer/>

suppression after the liver transplant," Dir. Timothy Donahue of the UCLA Center for Pancreatic Disease in Los Angeles, who had not treated Jobs, told MASC.. Com. He noted that most patients who receive liver transplants survive about increase the odds of survival, but it also depends on how aggressive the particular moors are in a patient. If surgery leaves behind microscopic aggressive tumor cells, they can cause a recurrence of cancer.

But because it's so rare, there isn't a lot of evidence to support the transplant as a cure; the procedure could extend life, but mispronunciation drugs may allow any remaining cancer to grow faster, doctors say. And a European study found that the majority of patients who underwent liver transplant for this type of tumor had recurrence of the disease. (Miller) The future of treating Pancreatic Cancer Researchers are working on better understanding the way in which pancreatic moors grow and spread.

There are a number of agents that are being looked at in clinical trials that focus on pathways that may allow pancreatic cancer to evade normal processes. One is an antibody that blocks a particular protein called PDP-I on the surface of pancreatic cancer, meaning chemotherapy's would be more effective because there would be an enhanced immune response against the tumor. That work is being done by the National Cancer Institute. (Coleman. , 2006) Another line of research is focused on finding boomers of pancreatic cancer so that a simple blood or urine test could be developed.

Unlike screenings for other conditions such as colon, breast and prostate cancers, there is no routine way to see whether a patient has a tumor in the pancreas. The future of medicine to help people with pancreatic cancer will

involve genetics. This would involve matching a person's particular type of tumor using genomic information with treatment. American Cancer Society's says " What's going to make real difference in the future is the revolution of the genomic era" (American Cancer Society 2013) Pancreatic Cancer is a disease that can go undetected for a long period of time, often defined as the silent disease.