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Spontaneous Regression and Remission of Pancreatic Cancer and its Possible Immunology

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Abstract

Researchers have been baffled by the reports of the spontaneous regression and remission of cancer without any medical intervention. A sudden disappearance of all signs and symptoms of cancer. It may occur in many different types of cancer.

Reports in the medical literature of the spontaneous remission and regression of cancer since the late 1880's were studied and compared to one another to find a common factor and an immunological explanation for these spontaneous remission and regression of cancer.

Two common factors have been identified among the reports of the spontaneous remission or regression of pancreatic cancer. First, a tissue inflammation being present. Secondly, an infection occurring concurrently with the tissue inflammation.

The conclusion drawn is that a suppressed immune system in cancer patients may be reactivated in the presence of an inflamed tissue accompanied by an infection. Thereby a remission or regression of cancer. The immunological mechanism of the activation of the immune system is not clear. Two experimental immunological treatments have been suggested.

Keywords

Pancreatic Cancer; Remission; Immunology

Introduction

Pancreatic cancer has a very aggressive growth and progression. Inflammation induced by the tumor seems to be the powerhouse for pancreatic growth and progression.

Inflammation appears to affect platelet activity. Platelets have an immune-regulatory function. Platelets activate NK Cells and other innate immunity cells to remove damaged cells, such as virus infected cells, cancer cells, etc. In the presence of cancer platelets inhibit NK cells from removing malignant cells. Furthermore, blood clots are a hallmark of cancer and it may occur long before any sign and symptom of cancer. Suggesting a pivotal role for platelets in relation to malignant tumor growth and progression.

It seems the world literature has very few case reports of spontaneous regression or remission of pancreatic cancer. This paper is referring to six of the reported cases and pointing out two common factors among them. First, a secondary inflammation taking place in addition to the inflammation induced by the pancreatic cancer. Secondly, an infection taking place concurrently.

Methods

A broad undertaking was taken to study different disciplines of cancer. The immunology and biology and endocrinology of cancer were studied. Also other related fields such regenerative growth, hormonal effect, neurology, etc. were studied. After a few years the focus was put in the reports of spontaneous remission and regression of cancer. Reports from the late 1800's were studied and categorized and compared to each other. The reports were categorized based on the tissue of origin and the event preceding the spontaneous remission or regression of cancer, such as an acute infection, biopsy, palliative radiation, a sudden rapid malignant growth, etc. This part the study took around forty years. The objective was to find a common factor among these reports and find an immunological explanation for these reports.

Case 1

Spontaneous regression of pancreatic cancer with liver metastases [1]
The patient had Mucositis and two episodes of Clostridium

Case 2

Spontaneous regression of a pancreatic head mass and biliary obstruction due to autoimmune pancreatitis [2]

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The patient had autoimmune pancreatitis and Biliary obstruction which is usually accompanied by infection.

Case 3

Carcinoma of head of pancreas with spontaneous regression [3]

The patient had acute cholangitis and pericholangitis and infectious hepatitis

Case 4

Spontaneous regression of pancreatic cancer [4]

The patient had severe peritonitis and pneumonia

Case 5

Spontaneous regression of metastatic pancreatic cancer. A role for Recurrent Inflammation [5]

The patient had acute pancreatitis and *Klebsiella pneumonia, Escherichia coli and Candida albicans*.

Case 6

Spontaneous remission of proven cancer [6]

The patient had a two month history of ulcer and diarrhea prior to the spontaneous disappearance of his pancreatic cancer.

Ulcers are generally caused by *H. Pylori* bacteria and accompanied by gastritis. Diarrhea for two month is possibly caused by an infection

This case is not explicit that inflammation and infection were present. Rather, it implies **(Table 1).**

Results

1. Two common factors have been identified among the reports of the spontaneous remission and regression of pancreatic cancer. A tissue inflammation and an infection present. Since, very few reports of spontaneous remission or regression of pancreatic cancer has been reported the finding of two common factors among six of these reports is statistically significant.

Discussion

One may speculate the significance of these two factors in the induction of a spontaneous regression or remission of pancreatic cancer.

1. Infections may elicit an immune response against the infection and the malignant growth. Infections, particularly febrile infections have been noted in the reports of the spontaneous regression and remission of cancer [8]

2.

a. A tissue inflammation may deplete mediators of systemic inflammation induced by the tumor. Thereby negating immune suppressive effects of systemic inflammation induced by the tumor. Therefore, allowing immune action against the malignant growth.

b. Tissue inflammation might be activating innate immunity cells (NK cells, Dendritic cells, etc.) to remove any damaged cells (Virus infected cells, cancer cells, etc.). On the other hand tumor induced inflammation is inhibiting innate immunity cells from removing the malignant growth. Yet, the dominating inflammation might be the tissue inflammation, therefore a regression or remission of cancer [7].

c. Tissue inflammation and tumor induced inflammation might be inducing a severe thrombocytosis resulting in a low platelet count due to the platelets leaving the circulation faster than they could be replaced. It is known that in cancer patient platelets inhibit NK cells from removing cancer cells. Thereby a low platelet count may delineate platelet inhibition of NK cells and allow NK Cells and other immune cells to remove the malignant cells. Furthermore, when the immune suppression is at its lowest a simple immune boost such as an infection may activate the immune system to remove the malignant growth.

d. It is known that inflammation promotes malignant growth and progression. In this study it appears spontaneous remission or regression of pancreatic cancer occurs in the presence of tissue inflammation. This is exactly the opposite of what is known about the relationship between inflammation and malignant growth and progression. What is going on!

3. One May Propose an Experimental Treatment for Cancer Patients

a) Blood test measuring tumor markers and inflammatory markers (ESR, CRP, etc.)

b) Lowering platelet count as much as is it would be safe. Low platelet count is needed for a few hours. Enough time to allow innate immunity cells (NK cells, Dendritic cells, etc.) recognize and process malignant cells with minimal platelet inference. Different avenues might be taken to lower the platelet count.

c) Injecting the patient with a few non live vaccines such as Diphtheria, Tetanus, pertussis, etc. or any other means to elicit an acute inflammatory response.

d) Blood test measuring tumor markers and inflammatory markers in 24 hours, 72 hours, seven days, fourteen days, and twenty one days after injection of non-live vaccines

e) A steady decline of tumor markers and inflammatory markers is a possible indication of a regression or a remission. Tissue inflammation and systemic inflammation induced by the pancreatic cancer might be inducing a rapid and steady growth of the pancreatic cancer. thereby, out growing itself and regressing. at the same time the infection might be inducing an immune reaction against the regressing pancreatic cancer. furthermore, too much inflammation may induce adrenal fatigue.

Case Report	Inflammation	Infection
Spontaneous regression of pancreatic cancer with liver metastases [1]	Mucositis	Clostridium
Spontaneous regression of a pancreatic head mass and biliary obstruction [2]	Autoimmune pancreatitis	Biliary obstruction [usually infection]
Carcinoma of head of pancreas with spontaneous regression [3]	Acute cholangitis pericholangitis	Hepatitis
Spontaneous regression of pancreatic cancer [4]	Peritonitis	Pneumonia
Spontaneous regression of metastatic pancreatic cancer [5]	Acute pancreatitis	*Klebsiella pneumonia Escherichia coli Candida albicans*
Spontaneous remission of proven cancer [6]	Ulcer [usually gastritis]	Two month diarrhea [usually infection]

Table 1: Inflammation and Infection report

f) Dexamethasone 1 mg given the day before non-live vaccines administered may enhance the effect of non-live vaccines as an immune boost. Dexamethasone can be used as an adrenal suppressant. The adrenal is releasing glucocorticoids in response to the systemic inflammation induced by the malignant tumor, which has an immune-suppressed effect, thereby the non-live vaccine having a better chance as an immune boost. In addition, a single dose of Dexamethasone partially negates the immunological eclipse induced by the malignant tumor

g) Cholinergic drugs or muscarinic acetylcholine ligands or acetlycholinesterase inhibitors use three days prior to and including the day of the administration of non-live vaccines may enhance the effect of non-live vaccines as an immune boost. The activation of cholinergic anti-inflammatory pathway may dampen the systemic inflammation induced by the malignant tumor, thereby the non-live vaccines having a better chance as an immune boost.

4 An alternative experimental treatment could be

a) Injecting the patient with an overload of antigen such as an endotoxin to induce a short and temporary immune paralysis [9]

b) Injecting the patients with a few non live vaccines such as Diphtheria, Tetanus, pertussis, etc. This may allow the innate immunity cells (NK cells, Dendritic cells, etc.) become activated against the malignant cells without the suppressive effects of the systemic inflammation induced by the malignant growth. As the body clear the antigen it is possible that an acute inflammatory response to take place before the activation of the systemic inflammation induced by the tumor.

c) A Patient taking a low dose of the synthetic corticosteroid such as prednisone 10 mg twice daily may enhance the effect of the non live vaccines as an immune boost.

Caution

Medical supervision required

The suggestion made is based on a hypothesis and there is no proof that it would be beneficial. It is an experimental treatment.

Disclaimer

No content on this site, regardless of date should ever be used as a substitute for direct medical advice from your doctor or other qualified clinicians.

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