



## TYPES OF DIABETES, INTERLINKED WITH CANCER AND OTHER DISEASES AND COMPLICATIONS WITH OR WITHOUT CANCER

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### **Abstract:**

**Aim:** To determine the link of cancer with diabetes, the research get started at a clinic.

**Method:** Patients who was having diabetes from last 10-12 years was taken as sample and start to determine the impacts of diabetes on human health and how cancer germs get generated in the body of diabetic patients.

**Result:** Patients with type 2 diabetes was having chances of cancer 13% but type 1 diabetic patient was just having 2-3% of cancer patients between them. Some precautionary measure should be taken to prevent people and to give them awareness about cancer with diabetes and how to get rid of this issue which is facing worldwide. After this whole research we concluded it as we have taken about 951 are linked with type 2 diabetes and 340 are linked with type 1 diabetes. Some of them was not going for their regular checkup from one year and other was going on regular bases. In this study, after different calculations we have given them insulin and also given tablets fir diabetes too few of them.

**Conclusion:** By checking the range of cancer in their bodies, there was not as much difference between those patients who was taking tablets then to those who was injecting insulin. Different types of cancer got diagnosed between them as breast cancer in women, colon cancer, throat cancer, lung cancer etc. Lung cancer mostly occur due to smoking. But most of the patients was those who was just having diabetes as it is either type 1 diabetes or type 2 diabetes but they did not have cancer with their diabetes.

**Keywords:** Types of Diabetes, Interlinked, Cancer, Other Diseases, Complications.

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### **Introduction:**

Different form of diabetes is there through which millions of people are getting effected from these diseases. There is also an important term of diabetes which is type 2 diabetes which harm human health a lot and is creating endemic effects worldwide. By rapid increase of this diseases many other diseases are also developing in our bodies and leaving bad impacts on our daily lives. Increasing level of diabetes in our bodies are causing disease as cancer and people become underweight due to this. Diabetes itself is a disease which cause excessive weight loss in people and they become underweight that's why many other diseases attack on human beings. Due increasing diabetic patients and along with them cancer patients they think about to overcome this issue by injection insulin to the patients. Because due to these diseases death rate was also increasing day by day. Know the thing to think is that why these diseases are increasing more rapidly as they are also not a viral disease, so they concluded that less intake of good food and proper diet and less body exercise is most commonly causing these disease. As per according to the research they are able to know that if person will take good food with full of nutrients and is completing all body requirements and are doing proper exercise will be less effective with these diseases. With a research we have seen that person who are effective with diabetes of type 2 will have more chances of cancer as compared to the person who is not suffering from diabetes.

Now if we compare both of type 1 and type 2 diabetes then we will be able to know about a big difference between the effects of both of these type of diabetes as if we check out the effects of type 1 diabetes we will know that it cause many other severe cancers as stomach cancer, cervix and also ovarian cancer in females. Most these cancerous diseases occur at the age of 9-14 years. In short if we say that we will write it as there is an interconnection between cancer and diabetes, because mostly diabetic patient suffer from cancer. Many doctors of different countries concluded about it that patients did not show any interest in coming to the clinics for their regular checkup, that's why this disease spread more rapidly in the body and cause cancer, to overcome this issue a study held.

### **Methodology:**

A study was held where we collect the data of different patients who was goings to the clinics for their regular checkups and was suffers from type

1 diabetes and type 2 diabetes. We take the patients who was suffering with this disease from very long time to collect proper results. They collect the data of those patients who was older than 25 years and was having this diseases from 8-10 years. We take a whole year to complete this study to check each and every thing about it and to collect as many points as they can.

We took about 760 patients of type 2 diabetes and about 340 patients of type 1 diabetes. In this study everything related to them get checked as first they separate out their diabetic history, either they have cancer or not. If they have cancer either they was having it before diabetes or after. Then they collect and noted down their ages, in which age this diseases attack to them, from how many years they are suffering from this, either they are smoker or not. Are their forefathers also suffer from this disease or not. Which type of physical exercises they are doing in their daily lives, they are taking good food with rich or nutrients and vitamins or not. They also measure their blood pressure, the weight of their bodies, their height everything get measured before starting any treatment on them.

After taking all this information about patients we start our research. We first separate those who was suffering from type 1 diabetes and an other group who was suffering from type 2 diabetes, then we check out their cancerous back ground as from how many years they are suffering form cancer with diabetes. Most of hem patients was those who did not come for check for approx one and half year before but was having diabetes. We also separate out the patients who was suffering from both diseases as cancer and diabetes and make another group who was not having cancer along with diabetes.

### **Results:**

The average age of patients was about 20-70 and their history of diabetes was about 10-18 years. As there was a patient who was about 65 years of age and was having diabetes from last 18 years we also check out their hemoglobin level as it was 8.0. and their body weight was about 80 kg. Patient with 45 years of age was having diabetes from last 25 years with Hemoglobin 7. Some of them was getting treated with medicines of diabetes and half of them was getting treated with insulin. About 54% of them was smokers there and few of them as about 35% was those who left smoking in their past but they was also smokers. If we talk about percentage of cancer in their diabetes then they

have seen that about 4% of patients was those who was suffering from type 1 diabetes and was having cancer but on the other case about 13% of them was those who was having cancer with type 2 diabetes. About 40-45 years of age was included in the history of type 1 and type 2 diabetes patients who was having cancer with diabetes from past 13-15 years. In the table different results are shown as according to their age, either they are males or females, they didn't differ with their blood pressure, body weight, duration through which they was having diabetes, they are smokers or was smokers in the past, their height etc and then we check out the type of treatment given to them as they are patients suffering with type 1 or with type 2 diabetes. But after this research results are shown as that there is no difference between patients who was taking medicines of diabetes or was getting injected insulin. The percentage of

cancer between them was equal. In females, the ratio of breast cancer was high due to a long history of diabetes. In male patients or we can say that patients who was doing smoking or also who was smokers was suffering from lung cancer with the history of diabetes with about 14-16 years.

After checking and considering this research, we have noticed that they was those patients who was suffering from diabetes with long histories and was their first time to visit our clinic for their checkup, after taking results we have seen that type 2 diabetes patients was about 951, 11% of them was suffering from cancer between the age of 60-65 years and if we check type 1 diabetic patients then they was about 341 and was having cancer about 13% at the ages of 50-55 years.

Comparison of patients with cancer and without cancer during diabetes.

	CA T2D (n=94) 13.4% (n=675)	CA (n=675)	CA+ TDM p (n=2) 2.5% (n=119)	CA- p (n=119)		
Sex males	65.5%	58.9%	NS	51.2%	52.2%	NS
Age	70.5%	69.3%	<0.06	50.0%	47.3%	NS
Age of diabetes	52%	54.4%	<0.04	39.7%	24.4%	<0.01
Duration of diabetes	28%	20.0%	NS	12.6%	48.9%	<0.03
Smoking	67%	53.2%	<0.03	51.0%	26.5%	NS
Males(kg)	29%	29.5%	NS	33.2%	81.4%	NS
Females(kg)	80%	82.4%	NS	96.5%	1.3%	NS
Height of males	76%	75.3%	NS	75.5%	1.6%	NS
Height of females	17.0%	12.8%	NS	1.8%	99.9%	NS
Waist of males	15.8%	12.4%	NS	1.7%	88.6%	NS
Waist of females	17.8%	15.2%	NS	1.6%	130.5%	NS
SAP	99.6%	98.1%	NS	101.3%	78.7%	NS
DAP	96.7%	45.8%	NS	98.9%	7.6%	NS
A1c%	13.8%	18.7%	NS	88.9%		NS
A ODs	80.5%	89.5%	NS	130.2%		
Insulin	7.1%	6.9%	NS	74.2%		
Before initiation of insulin	54.1%	55.1%	NS	8.1%		
Duration of treatment	72.3%	77.4%	NS			
Co existence	58.0%	69.0%	NS	67.7%	48.5%	NS

### Discussion:

Research based on our daily life issues. Some patients was selected to check out the level of cancer and type of cancer in those who was suffering from diabetes either it is type 1 or type 2 diabetes. Different types of studies held, patients was taking with their diabetic history as least 10-12 years in the past. A detailed procedure performed on them for best outcomes. Cancer was diagnosed with different percentage in both type of diabetes and was having different types as lung cancer, throat cancer or breast cancer etc.

Patients who was going for their regular checkup was having about 9.5% of cancer and those was  
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not going to clinics and left out taking proper medicines for diabetes was having percentage of about 13%. Patients who was younger and was suffer from type 1 diabetes was having 3.5% of in patients who was going for regular checkup and 2.5 of those who was not following medication and was not going to clinics. In this study, it is noticed that chances of cancer in patients who was suffering with diabetes was more as compared to any common person who was not having diabetes of any type and also seen that different types of cancer was noticed between these patients. Their treatment was also not same as some of patients was controlling their level of diabetes with medicines and tablets and few of them was taking

insulin to control their level of diabetes in their medicines. But there was no difference between the patients who was taking tablets or was

injecting insulin either they was having cancer or not.

	n	%
Urinary tract	2	2.1
kidney	4	4.5
Bladder	9	9.0
Colon	6	6.4
Breast	4	4.7
HCG	8	8.1
Pancreas	7	7.7
Lung	2	2.0
Skin	1	1.1
Non melanoma	1	1.0
Female genitals	7	7.8
Prostate	25	25.2
Stomach	4	4.3
Melanoma	5	5.2
Larynx	1	1.2
thyroid	5	5.3
pharynx	8	8.5
Total	98	101.0

Patients suffer from diabetes from last 10-12 years and was not going for regular checkup for about half a year.

	T2D N 951 CA + (n=101.0%) 11.0%	T1D 101 CA+ (n=3) 3.0%		
Male	544	54%	59.9%	
Age of diabetic patient	68.5%	70.0%	42.5%	56.5%
Duration of diabetes	51.0%	54.0%	22.7%	26.5%
Antidiabetic drugs	19.0%	19.5%	19.4%	32.1%
Insulin	653	64.5%		
Before initiation of insulin	23	1.2%		
Hemoglobin	278	36.5%	8.4%	6.6%
Treatment with insulin	298	28%	25.6%	23.5%

Cancers was present with different percentages as breast cancer in females was about 13.2% and they was not going for their regular checkup from a year. On the other hand lung cancer also effects many lives. It spread due to smoking, smokers

who was also suffering with diabetes was got effected with serious lung cancer and was ranging about 10.4%. Some cardiac issues also have seen during this research.

Type of cancer	Patients with regular checkup	%
Breast cancer	2	15.8%
Lung cancer	3	13.9%
Skin cancer	1	13.9%
Mortality rate	4	12.9%
Ovarian cancer	10	8.0%
Thyroid cancer	9	6.3%
Prostate cancer	3	6.4%
Urinary tract infection	3	3.2%
Genital	8	17.5%

### Conclusion:

After this whole research we concluded it as we have taken about 951 are linked with type 2 diabetes and 340 are linked with type 1 diabetes. Some of them was not going for their regular check up from one year and other was going on regular bases. In this study, after different calculations we have given them insulin and also given tablets for diabetes to few of them. By checking the range of cancer in their bodies, there was not as much difference between those patients who was taking tablets then to those who was injecting insulin. Different types of cancer got diagnosed between them as breast cancer in women, colon cancer, throat cancer, lung cancer etc. Lung cancer mostly occur due to smoking. But most of the patients was those who was just having diabetes as it is either type 1 diabetes or type 2 diabetes but they did not have cancer with their diabetes. Heart issues or as we called it as cardiac issue also have seen during this study, and their blood pressure level also got increased due to this disease which left very serious impacts on their health. So doctors are needed to help and aware their patients about how to get prevented from diseases like cancer and heart. Otherwise if they will not listen to their doctors they will face harmful diseases and death rate will also be increased.

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