

Case report on 44-year-old male patient with left breast carcinoma associated with Hypoglycaemia , Type 2 Diabetes mellitus, Hypertension, Acute Renal failure.

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ABSTRACT

Male breast cancer is a rare disease, accounting for about 1% of all breast cancers. Little is known about the etiology of male breast cancer, especially developed in young man. Genetic and hormonal factors have been reported to be involved in its pathogenesis. But, less is known regarding the role of anthropometric or other endocrine risk factors. It's extremely rare for breast cancer to occur in young male patient because male breast cancer generally occurs in old patients. A 44-year-old male was diagnosed with breast carcinoma who was with diabetes, Acute Renal failure, Hypertension and Asthma. There was no specific risk of genetic or hormonal factors for his breast cancer. A 44year old male patient presented with swelling over left breast. On examination his Ultrasound of chest shows multiple lesions on breast.

KEYWORDS

Male breast carcinoma, Hypoglycaemia, Type 2 Diabetes mellitus, Acute renal failure, Hypertension, Asthma, mastectomy

INTRODUCTION

Breast cancer occurs mainly in women, but men can get it, too. Many people do not realize that men have breast tissue and that they can develop breast cancer. Cells in nearly any part of the body can become cancer and can spread to other areas.

Breast cancer starts when cells in the breast begin to grow out of control. These cells usually form a tumour that can often be seen on an x-ray or felt as a lump. The tumour is malignant (cancer) if the cells can grow into (invade) surrounding tissues or spread (metastasize) to distant areas of the body. Breast cancers can start from different parts of the breast. Most breast cancers begin in the ducts that carry milk to the nipple (ductal cancers). Some start in the glands that make breast milk (lobular cancers). Men have these ducts and glands, too, even though they aren't normally functional. There are also types of breast cancer that start in other types of breast cells, but these are less common.(10).A small number of cancers start in other tissues in the breast. These cancers are called sarcomas and lymphomas and are not really thought of as breast cancers.

Although many types of breast cancer can cause a lump in the breast, not all do. There are other symptoms of breast cancer you should watch for and report to a health care provider.

It's also important to understand that most breast lumps are benign and not cancer (malignant). Benign breast tumours are abnormal growths, but they do not spread outside of the breast and they are not life threatening. Any breast lump or change needs to be checked by a health care provider to determine whether it is benign or malignant (cancer) and whether it might impact your future cancer risk.

We present the case of a 44 year old male patient who presented with Breast carcinoma since 6 years
 Type 2 diabetes is a lifelong disease that keeps your body from using insulin the way it should. People with type 2 diabetes are said to have insulin resistance. People who are middle-aged or older are most likely to get this kind of diabetes. It used to be called adult-onset diabetes. But type 2 diabetes also affects kids and teens, mainly because of childhood obesity. Type 2 is the most common type of diabetes. There are about 29 million people in the U.S. with type 2. Another 84 million have prediabetes, meaning their blood sugar (or blood glucose) is high but not high enough to be diabetes yet.(7)

High blood pressure (hypertension) is a common condition in which the long-term force of the blood against your artery walls is high enough that it may eventually cause health problems, such as heart disease.

- Blood pressure is determined both by the amount of blood your heart pumps and the amount of resistance to blood flow in your arteries. The more blood your heart pumps and the narrower your arteries, the higher your blood pressure. A blood pressure reading is given in millimetres of mercury (mm Hg). It has two numbers. Top number (systolic pressure). The first, or upper, number measures the pressure in your arteries when your heart beats. Bottom number (diastolic pressure). The second, or lower, number measures the pressure in your arteries between beats.
- Normal Blood pressure -120/80mmHg(8)

Acute kidney failure occurs when your kidneys suddenly become unable to filter waste products from your blood. When your kidneys lose their filtering ability, dangerous levels of wastes may accumulate, and your blood's chemical makeup may get out of balance.(9)Asthma is a condition in which your airways narrow and swell and may produce extra mucus. This can make breathing difficult and trigger coughing, a whistling sound (wheezing) when you breathe out and shortness of breath. For some people, asthma is a minor nuisance. For others, it can be a major problem that interferes with daily activities and may lead to a life-threatening asthma attack.

CASE REPORT

A 44 year male patient was admitted in the general surgery department of Rajiv Gandhi institute of medical science hospital with chief complaints of unconsciousness since 2hrs and hypoglycaemic condition .History of fall faint day before yesterday and recovered medication Swelling and abscess over the chest left side increased in size since one and half year ,Past history of Cerebro vascular attack two years back , used medication for two months and stopped .Patient has a history of Hypertension and Type 2 Diabetes mellitus since 5 years and is under medication. History of Asthma 7 years back and was admitted in hospital. On examination patient was unconscious and relieved after medication. His pulse was 92 beats per minute and blood pressure was 190/20mmHg and GRBS was 37mg/dl.

LABORATORY REPORTS INCLUDE

CBC: Hb-12.5g/dl; TC-9,300/mm³, DC-P72/L22/E4/M2/B0; Pt-2.9lakh/mm³; ALP-154IU/L; SGOT-34IU/L; SGPT-30IU/L; T. Protein-7.3g/dl; Albumin-3.6g/dl; T. Bil-0.8mg/dl; D. Bil-0.2mg/dl; Electrolytes: Na-142Meq/L; K-4.5Meq/L; Ionised Ca-4.55mmol/L; RFT: B. Urea-156mg/dl(Day1),110mg/dl(Day5),88mg/dl(Day6),96mg/dl(Day17); S. Cr-5.6mg/dl(Day1),4.9mg/dl(Day5),4.6mg/dl(Day6),5.8mg/dl(Day17); FBS: 89mg/dl(Day2),98mg/dl(Day3),110mg/dl(Day4),109mg/dl(Day5); GRBS-37mg/dl.

TESTS	LAB VALUE	REFERENCE VALUE
Serum Creatinine		
Day 1	5.6mg/dl	0.8-1.2mg/dl
Day 5	4.9mg/dl	
Day 6	4.6mg/dl	
Day 17	5.8mg/dl	
Blood Urea		
Day 1	156mg/dl	7-20mg/dl
Day 5	110mg/dl	
Day 6	88mg/dl	
Day 17	96mg/dl	
GRBS	37mg/dl	80-130mg/dl
Day 1		
Fasting Blood Sugar		
Day 2	89mg/dl	<100mg/dl
Day 3	98mg/dl	
Day 4	110mg/dl	
Day 5	109mg/dl	

DAY TO DAY MONITORING CHART:

	Fresh Complaints	Vitals
DAY 1	NO	190/20 mmHg; PR-92bpm; Spo2-99% RA
DAY 2	NO	180/120 mmHg; PR-97bpm; Spo2-98% RA
DAY 4	NO	180/120 mmHg; PR-91bpm; Spo2-98% RA
DAY 5	NO	190/70 mmHg; PR-96bpm; Spo2- 97% RA
DAY 6	NO	200/120 mmHg; PR- 86bpm; Spo2- 99% RA
DAY 7	NO	192/120 mmHg; PR-92bpm
DAY 8	NO	160/100 mmHg; PR-88 bpm; Spo2-98%
DAY 9	NO	160/100 mmHg; PR-92bpm; SPO2-98%
DAY 10	Shortness of breath	164/100 mmHg; PR-77bpm
DAY 11	SOB relived	150/100 mmHg; PR-100bpm
DAY 12	NO	140/90 mmHg; PR-92bpm
DAY 13	NO	160/100 mmHg; PR-89bpm; SPO2-98% RA
DAY 15	NO	150/80 mmHg; PR – 84bpm; Spo2-99%RA
DAY 16	NO	120/70 mmHg; PR-84bpm; Spo2-99% RA
DAY 17	NO	130/70 mmHg; PR- 81bpm; Spo2-98% RA
DAY 20	NO	130/70 mmHg; PR-86bpm
DAY 21	NO	120/80 mmHg ; PR-95bpm ;Spo2-95% RA

ULTRASOUND OF CHEST AXILLA

Well differed cystic lesion size :7.5*7.2cm showing noted in the left chest. Another cystic lesion is size 39*3cm noted posterior to the above lesion with solid components showing internal vascularity.

EKG

Wide spread ST-T abnormality may be due to myocardial ischemia

ULTRASOUND OF ABDOMEN AND PELVIS

Right kidney -7.9*2.1 cm; Left kidney -8.2*3.1cm

Impression: Increased echotextures Grade I to II Renal parenchymal disease

Patient was treated with Inj.Lasix20mgIV stat; Inj.25% Dextrose IV stat; Tab.Ecospirin 150mg OD; Tab.Atorvastatin 40mg OD; Tab.Amlodipine 10mg OD; Tab.Telamasartan 40mg OD; Tab.Deriphylline100mg BD; Tab.Cefixime 200mg BD; IVF: DNS, NS@ 50ml/hr; Tab.Metformin 500mg BD; Tab.Glimepiride 5gm OD; Tab.Nodosis 500mg TID; Tab. PCM 500mg BD; Tab.Ca/IFA OD. Aspirin was stopped on Day 4. Simple Mastectomy was done on Day 17. Oral soft diet was recommended after surgery. Tab.Nodosis was stopped on Day 21.

DATE	TREATMENT	DOSE	FREQ	ROA	DURATION
13/1/21- 15/1/21	Tab.Ecospirin Tab.Atorvastatin Tab.Amlodipine Tab.Telamasartan Tab.Deriphylline Tab.Cefixime Tab.PCM	150mg 40mg 10mg 40mg 100mg 200mg 500mg	OD OD OD OD BD BD TID	Oral Oral Oral Oral Oral Oral Oral	9:30AM
16/1/21- 18/1/21	Tab.Atorvastatin Tab.Amlodipine Tab.Telamasartan Tab.Deriphylline Tab.Cefixime Tab.PCM Tab.Metformin Tab.Glimepiride	40mg 10mg 40mg 100mg 200mg 500mg 500mg 5gm	OD OD OD BD BD TID BD OD	Oral Oral Oral Oral Oral Oral Oral Oral	9:30AM
19/1/21- 21/1/21	Tab.Atorvastatin Tab.Amlodipine Tab.Telamasartan Tab.Deriphylline Tab.Cefixime Tab.PCM Tab.Metformin Tab.Glimepiride Tab.Nodosis Tab.Lasix Tab.Calcium Tab.IFA	40mg 10mg 40mg 100mg 200mg 500mg 500mg 5gm 500mg 20mg 600mg 1mg	OD OD OD BD BD TID BD OD TID OD OD OD	Oral Oral Oral Oral Oral Oral Oral Oral Oral Oral Oral Oral	9am-2pm
22/1/21- 28/1/21	Tab.Atorvastatin Tab.Amlodipine Tab.Telamasartan Tab.Deriphylline Tab.Cefixime Tab.PCM Tab.Metformin Tab.Glimepiride Tab.Nodosis Tab.Lasix Tab.Calcium Tab.IFA Neb.Duolin+Budecort	40mg 10mg 40mg 100mg 200mg 500mg 500mg 5gm 500mg 20mg 600mg 1mg 1.25mg+0.5mg	OD OD OD BD BD TID BD OD TID OD OD OD TID	Oral Oral Oral Oral Oral Oral Oral Oral Oral Oral Oral Oral Oral	9:00AM

29/1/21-30/1/21	SIMPLE MASTECTOMY WAS DONE				
31/1/21-2/1/21	Inj.Monocef	1gm	BD	IV	9:00
	Tab.Pantop	40mg	OD	Oral	
	Tab.Atorvastatin	40mg	OD	Oral	
	Tab.PCM	500mg	BD	Oral	
	Tab.Metformin	500mg	BD	Oral	
	Tab.Glimepiride	2mg	BD	Oral	
	Tab.Lasix	20mg	OD	Oral	
	Tab.Nodosis	500mg	TID	Oral	
	Tab.Calcium	600mg	OD	Oral	
	Tab.Theophylline	100mg	BD	Oral	
	Tab.Telamasartan	40mg	OD	Oral	

He underwent simple mastectomy. The procedure was electrical incision. Given around nipple alveolar complex and lump, flaps raised endo breast tissue along with lump is excised. All excised left breast haemostasis required, drained, kept and sutured with nylon He is in troop.

Discharge medication

Drug Name	Dose	Frequency	Duration
• T amoxicillin	500mg	BD	7days
• T pantop	40mg	OD	7 days
• T.pcm	500mg	OD	7days
• Tb. complex	5mg	OD	7 days
• T. IFA	500mg	OD	7 days
•			
• T. Lasix	40mg	OD	7 days
• T.	400mg	OD	7 days
• T. Theophylline	200mg	BD	7 days
• T.cefixime			
•			
• T. Metformin	500mg	BD	7 days
• T. Telma	40mg	OD	7 days

Discussion

Breast cancer is the most common malignancy in women in the United States and is second only to lung cancer as a cause of cancer death. However, breast cancer in men is very rare, accounting for just under one percent of cases. Few male breast cancer-specific epidemiological or clinical trial data are available, thus our understanding of male breast cancer comes from studies of female breast cancer, painting an inaccurate picture when it comes to determining contributing factors. Still, male and female breast cancers share many common risk factors; for example, advancing age and previous family history. Also, conditions that result in a relative excess of oestrogen or relative lack of androgen result in an increased risk of breast cancer in both women and men.

It is documented the association of obesity and male breast cancer that is biologically explained by the increased peripheral aromatization of oestrogen. Men with BMI of ≥ 30 kg/m² had an 80% increased risk of breast cancer compared with men with BMI of less than 25 kg/m².(1)

Some studies found slightly elevated risk of male breast cancer associated with a history of diabetes. A history of diabetes was related to a modest but statistically significant risk increase. So, his diabetes may contribute to his breast cancer.(11)

Treatment strategies for male breast cancer are not based on data from randomized clinical studies in men and most treatment recommendations are extrapolated from data in women.(2)

Men with breast carcinoma have a poor prognosis, especially in the younger age group, because most breast enlargements in young men are dismissed as gynecomastia.(3)

The risk of subsequent contralateral breast cancer was highest for men aged less than 50 years at the time of the first cancer diagnosis, which is consistent with studies of women with breast cancer.(4)

The most common psychiatric co-morbidities in breast cancer patients are anxiety and depression. Patients with breast cancer may experience anxiety and/or depression at any stage of the disease. (5)

CONCLUSION

Breast carcinoma in men is extremely rare; For men, the lifetime risk of being diagnosed with breast cancer is about 1 in 833(12)). Risk factors for male breast cancer include genetic factors and hormonal abnormalities. Despite an absence of a familial history of breast cancer, hormonal abnormalities, or a genetic disease The causative factors in this patient were unable to be definitively identified.

In present case the patient medical history is associated with breast carcinoma since 6 years Hypertension, Diabetes since 5 years, Acute kidney injury is recently diagnosed. At the time of Admission in Hospital patient is unconscious due to over dose of Anti Diabetic drugs (voglibose, Metformin Hydrochloride, glimepiride). The risk of Other types of cancer is increased in this patient. Medication adherence should be followed; regular screenings should be done. Hypoglycaemia complications include acute cerebrovascular disease, myocardial infarction, neurocognitive dysfunction, retinal cell death and loss of vision(13).Hypoglycemia induced seizures can occur .Acute kidney injury complications include serum creatinine and blood urea levels are Uncontrollable which is nothing but indication of chronic kidney disease ,need of dialysis is there ,further damage to kidneys may lead to kidney transplantation .Due to reduced excretion of nitrogenous wastes metabolic acidosis may occur .Hypertension is not on control and the ECG reports show Myocardial ischemia symptoms and if it is not treated it may leads to further cardiac related problems and other complications include kidney failure, and other brain issues. Diabetes mellitus complications include Diabetes ketoacidosis& ketones, Diabetic neuropathy, Skin complications, Eye complications, & Foot complications. Due to lack of medication Adherence the risk factors increased for this patient which may lead to above complications.

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