

Review Article

Molecular Analysis of UTIs in Female Cancer Patients.Memona Ali¹, Maria², Muhammad Waseem³, Muhammad Asim Bilal⁴*Tertiary Care Hospital¹⁻² Lahore, University of Wales, UK³***Abstract:**

Introduction: Normal cells develop into malignant cancer cells through a complex process, including initiation (DNA damage from a carcinogen or reactive molecule), promotion (stimulation of initiated cells' growth), and progression (more aggressive growth with angiogenesis and metastasis).

Methodology: Most cancers develop over at least 10–20 years. Numerous factors, including some related to metabolic states in overweight, obesity, and type 2 diabetes, as well as dietary intake and physical activity, appear to promote or inhibit cancer development.

Results: Numerous factors, including some related to metabolic states in overweight, obesity, and type 2 diabetes, as well as dietary intake and physical activity, appear to promote or inhibit cancer development.

Conclusion: Numerous factors, including some related to metabolic states in overweight, obesity, and type 2 diabetes, as well as dietary intake and physical activity, appear to promote or inhibit cancer development.

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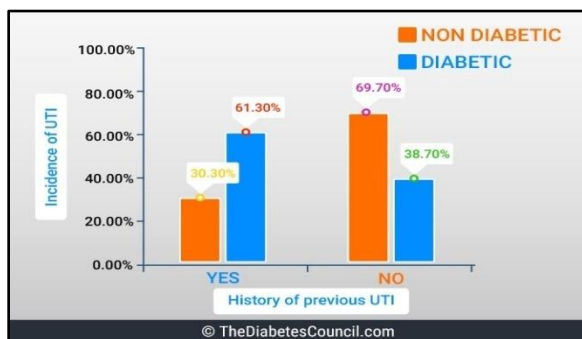
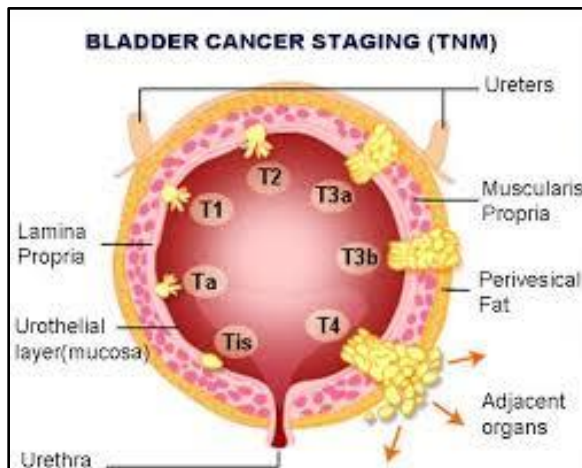
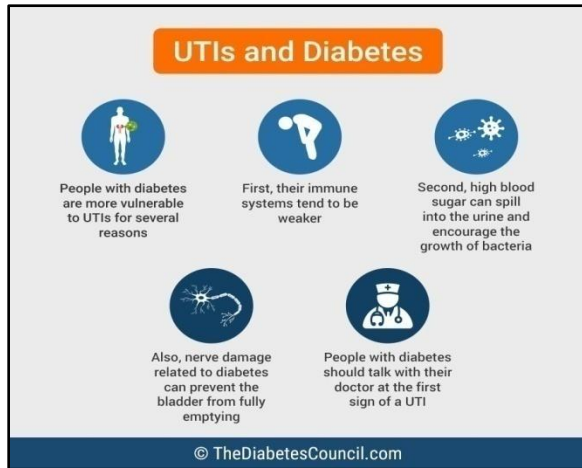
Introduction

Normal cells develop into malignant cancer cells through a complex process, including initiation (DNA damage from a carcinogen or reactive molecule), promotion (stimulation of initiated cells' growth), and progression (more aggressive growth with angiogenesis and metastasis). Most cancers develop over at least 10–20 years. Numerous factors, including some related to

metabolic states in overweight, obesity, and type 2 diabetes, as well as dietary intake and physical activity, appear to promote or inhibit cancer development.

Insulin-like growth factor-1 (IGF-1) is a polypeptide synthesized by almost all cells, although primarily by the liver. Elevated insulin stimulates production of IGF-1 and decreases production of its binding proteins, thus increasing bioavailable IGF-1. Cell

studies suggest that IGF-1 is even more potent than insulin in promoting cell proliferation and inhibiting apoptosis (self-destruction of abnormal cells). Human population studies link higher levels of IGF-1 with an increased risk for colorectal and estrogen receptor-positive breast cancer and possibly prostate and other cancers.



Objective

1. Recruitment of 100 patients with diabetes mellitus and have some kind of cancer with stringent inclusion and exclusion criteria and the same number of age and sex-matched normal healthy controls shall be done.
2. Clinical history and Consent of all patients and control shall be done.
3. Cholesterol level from the lipid samples of diabetes patients shall be investigated by advance techniques. Any variation in the lipid and protein patterns with that of control will be evaluated.
4. Statistical and bioinformatics analysis of the research data thus obtained shall be done.

Materials and Methods

Sample Collection:

All the samples were collected at the University Health Center, University of Punjab, Lahore, ShaukatKhanam Memorial cancer Hospital and Research Centre. 5cc Blood samples were collected in accordance with standard protocols of Health Center. Equal number of male and female patients were selected. Control group was selected with similar physical parameters like age, sex, height and weight.

Processing and Storage of Samples:

Left samples undisturbed for 30-60 minutes for blood to clot.

Screening for hepatitis B and C:

Hepatitis free samples will then be centrifuged at 1,000-2,000 x g for 10 minutes in a centrifuge. Supernatant hence

collected was serum and was stored at -80°C for further analysis.

Estimation of biochemical parameters:

Blood samples will be collected from the selected subjects. Relevant biochemical parameters shall be determined as all initial and baseline biochemical tests including blood sugar, and Cholesterol from standard referred protocols in the kits in autanalyzer of the health Centre laboratories. 10 mL of blood will draw from diabetic patients as well as healthy controls after an overnight fast in serum tubes.

After centrifugation at 1000 rpm for 45 minutes at 8°C , the serum will carefully remove, aliquoted, and frozen at -80°C until further use.

Conclusion:

Numerous factors, including some related to metabolic states in overweight, obesity, and type 2 diabetes, as well as dietary intake and physical activity, appear to promote or inhibit cancer development.

Conflict of interest: None

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Reference

1. <http://www.nature.com/nrendo/journal/v5/n5/index.html>
2. <https://medicalxpress.com/news/2019-08-diabetes-cancer.html>
3. <https://www.medicalnewstoday.com/articles/322517.php><http://www.nature.com/nrendo/journal/v5/n5/index.html>

[e.com/nrendo/journal/v5/n5/index.html](http://www.nature.com/nrendo/journal/v5/n5/index.html)

4. <http://www.nature.com/nrendo/journal/v5/n5/index.html><http://www.academicjournals.org/SRE/contents/2009content/May.htm>
5. Swartz, M. A., Karth, J., Schneider, D. T., Rodriguez, R., Beckwith, J. B., & Perlman, E. J. (2002). Renal medullary carcinoma: clinical, pathologic, immunohistochemical, and genetic analysis with pathogenetic implications. *Urology*, 60(6), 1083-1089.