

## 258. THE ANGIOGENIC PATHWAY OF GLIOBLASTOMA

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**Background:** There are over 130 different types of tumors in the central nervous system that include astrocytoma, glioblastoma, oligodendroglioma, meningioma, and schwannoma. From them, glioblastoma is considered the most common lethal primary brain tumor in adults.

**Objective:** To create an overview of different angiogenic pathways of the glioblastoma.

**Material and Method:** The 277 histopathologically confirmed consecutive primary brain tumors diagnosed at Department of Pathology of Emergency County Hospital of Tirgu-Mures, Romania, during 2012-2013, were retrospectively checked to see the incidence and immunohistochemical (IHC) particularities of glioblastoma. The immunostains were performed in 35 randomly selected glioblastomas, using the angiogenesis-related antibodies Vascular Endothelial Growth Factor (VEGF-A), COX-2, Maspin, and Epidermal Growth Factor Receptor (EGFR).

**Results:** From the 277 tumor cases, 62 (22.38%) were glioblastomas. Most of them (85.48%, n=53) were diagnosed in patients over 40, with a male:female ratio of 1.4:1. From the 35 cases used for IHC examinations, only 6 were marked by VEGF (17.14%), the other 29 (82.86%) being VEGF negative. No one of the cases showed maspin positivity. The rate of positivity for EGFR and COX-2 was 37.14% (n=13) and 60% (n=21), respectively. All of the 13 EGFR positive cases displayed COX-2 positivity and did not showed VEGF expression.

**Conclusions:** In glioblastoma cells, the angiogenesis is rather mediated by COX-2 than VEGF or maspin. In patients with VEGF negative glioblastomas, the anti-EGFR drugs could be successfully used. The effect of anti-EGFR drugs can be improved when combined with anti-COX-2 agents.

## 259. USING BETA BLOCKERS IN DIABETES.

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**Introduction.** Cardiovascular complications of diabetes mellitus have a high incidence with repercussions affecting the patients' quality of life. Beta blockers have an important role in treating those complications. However, their use may be Associated with some harmful effects. So, the goal of this paper is to find out possible ways of safe beta blockers' use in treatment of diabetes mellitus.

**Materials and methods.** In order to achieve this goal, there was performed a profound analysis of bibliographical and reference sources referring to beta blockers use in diabetes treatment.

**Discussion results.** Diabetes mellitus is a relative contraindication for beta blocker therapy, because it may block the glycogenolysis and tisular glucose mobilization, thus impairing the recovery from hypoglycemic crisis or hiding its symptoms, may reduce the insulin secretion and raise TAG, HDL, fasting glycemia levels, as well as glycozilated Hb and insulin resistance. Inhibiting  $\beta_3$  receptors they may cause a weight gain of 1-2 kgs. On the other hand, diabetes has multiple complications like arterial hypertension, ischemic heart diseases and cardiac insufficiency- those that are proved to be treated well by  $\beta_1$  receptors blocking. Thereby we may reconsider the use of beta blockers that can treat those complications without harmful side effects. Some clinical research prove that  $\beta_1$  blockers are way more efficient in cardiovascular problems than converting enzyme inhibitors in diabetic patients. Comparing  $\beta_1$  blockers, converting enzyme inhibitors, calcium channel blockers and thiazide diuretics in such cases shows almost the same efficiency rate.

**Conclusion.** Beta blockers, if chosen accurately may serve as an efficient way of treatment the diabetes complications without jeopardizing patient's health. The key moment is a selective  $\beta_1$ -blocking, thus evading those side effects caused by  $\beta_2$  blocking.

**Key Words:** beta-blocker, diabetes, cardiovascular diseases.

## 260. RESISTANCE AND SUSCEPTIBILITY AMONG URINARY TRACT INFECTIONS ISOLATES OF ESCHERICHIA COLI FROM FEMALE OUTPATIENTS

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**Introduction:** Urinary tract infections are the most common bacterial infections in women and account for significant morbidity and health care costs. A limited and predictable spectrum of organisms cause urinary tract infections in young, otherwise healthy females. Among both outpatients and inpatients, Escherichia coli is the primary urinary tract pathogen, accounting for 75 to 90% of uncomplicated urinary tract infection isolates. Staphylococcus saprophyticus, Klebsiella spp., Proteus spp., Enterococcus spp., and Enterobacter spp. are pathogens less commonly isolated from outpatients.

**Aim:** The present study was conducted to determine regional, and institutional in vitro susceptibilities for ampicillin, ciprofloxacin, nitrofurantoin, and SXT among urine isolates of E. coli from female outpatients from Urology Department of Emergency Hospital, Targu Mures from Romania. In addition, the rate of change in susceptibilities to these four commonly tested antimicrobial agents over 3 years, from 2012 to 2014, was also determined.

**Materials and Methods:** We retrospectively reviewed 272 patients with a urinary tract infection with Escherichia Coli starting in 01.01.2012 to 31.12.2014 from Urology Department by Emergency County Hospital Targu Mures. The susceptibility testing results (by Kirby-Bauer technique) included in the analysis were restricted to urine isolate of E. coli submitted per calendar year by female outpatients of all ages. We will provide data about the evolution under this treatment. All statistical analysis were performed using GraphPad Prism 6.0.

**Results:** Ampicillin, ciprofloxacin, nitrofurantoin, and SXT susceptibilities for urine isolates of E. coli from female outpatients during the years 2012 through 2014: for the Ampicillin (susceptibility