

## UTICAJ RAZLIČITIH FAKTORA NA VREDNOSTI GALEKTINA-3 U SINDROMU POLICISTIČNIH JAJNIKA

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Sindrom policističnog ovarijuma najčešći je endokrinološki i metabolički poremećaj zastupljen kod žena u reproduktivnom periodu. Serumske vrednosti galektina-3 povišene su kod pacijentkinja sa sindromom policističnih jajnika i postoji pozitivna korelacija između vrednosti galektina-3 i insulinske rezistencije, nivoa androgena i hirzutizam skora (1). Bromokriptin kod pacijentkinja sa sindromom policističnih jajnika inhibiše hipersekreciju LH što dovodi do uspostavljanja ciklične ovarijalne funkcije i smanjene sinteze androgena (2). Metformin se koristi u terapiji sindroma policističnih jajnika zbog povećanja insulinske osetljivosti i estrogenske sekrecije jajnika i smanjene ovarijalne sinteze androgena (3). Cilj našeg istraživanja bio je određivanje faktora koji utiču na vrednosti galektina-3 u sindromu policističnih jajnika. Na Klinici za ginekologiju i akušerstvo Univerzitetskog kliničkog centra Niš ispitivane su vrednosti galektina-3 u serumu 53 pacijentkinja starosti 23-43 godine, obolelih od sindroma policističnih jajnika. Sve pacijentkinje primale su metformin, dok je 11 pacijentkinja primalo i bromokriptin. Podaci dobijeni uzorkovanjem seruma obrađeni su u programu SPSS 27.0 metodom standardne višestruke regresione analize uz određivanje aritmetičke sredine i standardne devijacije doza metformina i bromokriptina, koncentracija metformina i galektina-3 u serumu. Metodom standardne višestruke regresione analize ispitivan je uticaj starosti, pušenja, BMI, klirensa kreatinina, bromokriptina i doze metformina na koncentraciju galektina-3. Ispitivani model objašnjava 23,2% varijanse galektina. Kao nezavisni faktori rizika izdvojili su se upotreba bromokriptina (Beta=0,484, p=0,036) i doza metformina (Beta=0,461 p=0,050). Uticaj bromokriptina je jači u odnosu na dozu metformina. Naše ispitivanje pokazalo je da je galektin-3 bio viši kod pacijentkinja koje su u terapiji pored metformina imale i bromokriptin, kao i višu dozu metformina.

### Literatura

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## THE FACTORS INFLUENCING GALECTIN-3 LEVELS IN POLYCYSTIC OVARY SYNDROME

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Polycystic ovary syndrome is the most common endocrinological and metabolic disorder present in women during the reproductive period. The serum values of galectin-3 are increased in patients with polycystic ovary syndrome and there is a positive correlation between the values of galectin-3 and insulin resistance, androgen level as well as hirsutism score (1). Bromocriptine inhibits LH hypersecretion leading to restoration of cyclic ovarian function and reduced androgen synthesis (2). Metformin is used as it increases insulin sensitivity and ovarian oestrogen synthesis and reduces ovarian androgen synthesis (3). Our goal was to identify factors which influence galectin-3 levels in polycystic ovary syndrome. At the gynaecology and obstetrics clinic, University Clinical Centre Niš galectin-3 levels were measured in 53 patients, aged 23-43, affected by polycystic ovary syndrome. All patients were given metformin while 11 patients also received bromocriptine. The information gathered from serum samples was analysed in the program SPSS v27.0 via multivariate regression analysis as well as calculating the mean and standard deviation of metformin dose and bromocriptine, metformin and galectin-3 serum concentrations. Multivariate regression analysis was used to determine the influence of age, smoking, BMI, creatinine clearance, bromocriptine and metformin dose on galectin-3 concentration. The examined model explains 23,2% variance of galectin-3. Significant independent variables were bromocriptine use (Beta=0,484, p=0,036) and metformin dose (Beta=0,461 p=0,050). The influence of bromocriptine was more significant than metformin dose. Galectin-3 concentration was higher in patients treated with metformin and bromocriptine, as well as patients who received a larger dose of metformin.

### References

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