Materials and methods. We prepare questionnaires for visitors of pharmacies in Grodno who purchased antihypertensive drugs. These questionnaires contain questions about drugs that are used by these persons and about some factors that may influence antihypertensive therapy.

Results. A total of 109 pharmacy visitors were interviewed, all of them had AH. Of these, 50 were males and 59 were females who underwent anti-hypertensive therapy. Among these patients 46 (42,2%) received a monotherapy, 45 (41,3%) used two antihypertensive drugs, 12 (11,0%) and 4 (3,7%) were treated by three and four drugs, respectively. 22 (20,2%) of the interviewed patients used fixed-dose combinations. Among the major classes of antihypertensive drugs ACEi were used the most frequently – in 71 (65,1%) cases; among them lisinopril was the most widely prescribed – in 34 (31,2%) cases. Representatives of other classes of antihypertensive drugs were administered with next frequencies: CCB – 28,4%, Diu – 29,4%, ARB – 22,9%, BARB – 21,1%.

Conclusion. In most cases, prescribing of antihypertensive drugs in Grodno corresponds to international guidelines for the treatment of AH. But there are some disadvantages that include: 1) high frequency of the monotherapy; 2) relatively rare use of the fixed-dose combinations; 3) low frequency of prescribing of such effective and safe group of antihypertensive drugs as angiotensin receptor blockers.

INFLUENCES OF VITAMIN D3 ON TESTOSTERONE IN HUMAN MALE TESTIS

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Actuality. The primary source of inactive vitamin D3 (VitD3) is the endogenous synthesis, which occurs in the skin, where a cholesterol precursor is converted to cholecalciferol, or VitD3, by the ultraviolet B radiation from the sun. Levels of VitD affecting the level of the hormone testosterone and semen quality, including morphology, count and motility, and causing hypo sexual disease in the human male [1].

Purpose. Identify diseases effects of decreasing levels of VitD in the human body.

Materials and methods of research. Several parameters used in this article include the parameter of VitD3 which the average value=40-80 ng/ml and total testosterone (7.60-40 nmol/l), free testosterone (0.3-1 nmol/l), SHBG (16-55 nmol\l), semen examination sperm count (15×10^6), sperm motility (40 %).

In research work we use the HPLC system. The HPLC separation works with an isocratic method at 30°C with a “reversed-phase” column.

Results. Serum of male patients (n = 45) was examined, at specialized laboratories of Iraq in 2019, the age of participation about 24-52.

Descriptive Statistics shows values; all the results mean ± SD were determined Vit.D (37.3 ± 16.12), total testosterone shows the value of (8.8 ± 6.07), stimulating hormone-binding globulin (SHBG) 16.28 ± 8.47, Free Testosterone (0.33 ± 0.25).

All the results are statistically determined, and p-value < 0.05 used a significant marker or impact of two correlations.

Patient with a parathyroid and liver disease, who have kidney failure showed that low of vitamin D3 consequently low of testosterone level and hypo sexual disease.

Group of healthy persons showed that normal levels of vitamin D3 and show normal levels of testosterone, both total and free.

Conclusions. VitD has been suggested to play a role in male sexuality, mainly exerting a beneficial effect on semen quality, in the present study in men from the general population find association between VitD status and circulating testosterone levels, VitD exerts a beneficial effect on semen quality, particularly on sperm motility, which is probably driven by the modulation of factors involved in spermatozoa function, namely, calcium homeostasis

References

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THYROID DISORDER AND ITS EFFECT ON DIABETES

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Actuality. Through the hormones it produces, the **thyroid** gland influences almost all of the metabolic processes in your body. Thyroid disorders can range from a small, harmless goiter (enlarged gland) that needs no treatment to life-threatening cancer. The most common thyroid problems involve abnormal production of thyroid hormones. Too much thyroid hormone results in a condition known as hyperthyroidism. Insufficient hormone production leads to hypothyroidism [1].

Purpose. Identify correlation between thyroid malfunction owing to diabetes.

Materials and methods of research. Fifty samples which included diabetes type 2 adults, hyperglycemic patients were analysed. Fasting blood samples were collected in sodium fluoride and potassium oxalate mixture in the ratio of 1:1 at concentration of 4 mg mixture per ml of whole blood. Plasma was obtained by centrifuging the blood at 2000 rpm for 10 min. We used Systronics and Hans 202