Aim of the study. The purpose of this study is to establish the peculiarities of clinical and cytogenetic variations in male infertility caused by Klinefelter's syndrome
Materials and methods. A group of 75 men suspected with Klinefelter syndrome was clinically-genetically assessed during medical genetic counseling at the Center for Reproductive Health and Medical Genetics of the Institute of Mother and Child. Karyotyping of peripheral blood lymphocytes according to standard methods G was used for confirmation of diagnosis.
Results. The average age of patients with Klinefelter syndrome was 32.7, the main reason for consulting was infertility. The most common chromosomal abnormality diagnosed in the 35 patients with Klinefelter syndrome was homogeneous trisomy 47,XXY (30 cases - 85.7%), followed by mosaic form (47,XXY/46,XY: 3 case), polysomy X-Y (48,XXYY: 1 case and pentasomy - 49,XXXXY: 1 case). The main phenotypic aspects in men with KS were: hypogonadism, gynecomastia, azoospermia, decreased penis size, mental retardation, increase level of FSH. Most patients with Klinefelter syndrome were significantly taller than patients with normal karyotypes.
Conclusions. Medical genetic counseling and cytogenetic analyzes (karyotyping) are necessary for confirmation of clinical diagnosis in patients suspected with Klinefelter's syndrome.
Key words: Klinefelter syndrome, infertility, diagnosis, karyotype, cytogenetic testing

317. HUMAN CHIMERAS

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Introduction. The fundamentals of genetics states that every organism has one type of DNA that is present within any cell, and each cell of one body contains the same DNA. There is no law without any exception. Genetic chimeras are organisms that own two cell lines, meaning they have cells that contain different DNA. At first glance this phenomenon seems impossible, as nature accepts no mistake, but the existence of these organisms is undeniable. Chimeras live around us, and without an DNA test they cannot be spotted, as they present no specific or abnormal features. The frequency of chimerism is still unknown, as no one tests for it.
Aim of the study. The main goal of this research is to report an interesting and poorly known phenomenon, along with its particularity and recent scientific researches in the domain.
Materials and methods. For this research, scientific reports from various on-line platforms as CELL press, or PLOS Biology were used, along with other informative sources from internet.
Results. The result of this research is a short glance into the future of genetics, as the study of chimerism leads towards a new scientific branch that seems appealing to biologists, organ engineering.
Conclusions. Chimeras are one of the most marvelous examples of natural wonders, and understanding the way they are created, can lead humanity to the understanding of its own origin, the origin of life.
Key words: Chimera, Two cell lines, different DNA.