Acne - a disease which in one form or another during the life suffer up to 95% of the population of civilized countries [5, 8]. In recent years, acne is no longer a just teenage disease and often occurs in adolescence and adulthood. It is known that post inflammatory skin changes disturb most patients not less than the actual manifestations of acne, it adjusted difficult and often remain forever, which also reduces the quality of life of patients [8, 20]. Dermatology is an urgent need before nosology problem of diagnosis and prevention of the formation of pronounced skin blemishes that will significantly reduce the psychosocial consequences of the disease, improve quality of life and reduce overall costs for the treatment of acne and correcting its effects [17].

The basis of all state norms and pathology is interaction peculiarities of organism of genetic and environmental factors. In fact, the genetic component gives an explanation of individual differences in susceptibility to a particular disease and causes a different degree of its manifestation and susceptibility to various means of therapy [11]. Multifactor pathology to which the acne include is characterized by polygenic predisposition, which is implemented through specific inherent features of genotypic constitution norm of reaction [14]. Of course, problems in the study of predisposition to acne one of the promising is constitutional approach, which involves the study of private subsystems of general constitution of man and can detect internal communications between private constitutions and structural-functional state of organism [13], including acne. The most complete picture of the overall human constitution gives somatotype (private bodily constitution). It is important to emphasize that a predisposition to acne and features of the constitution is largely caused by genetic factors [1], thus suggesting the relationship of physical types with a predisposition to this dermatosis [9]. In addition, the constitutional approach could promote primary prevention among persons who due to the peculiarities to their constitutions tend to the appearance of acne [17].

**The purpose of research** - identify the characteristics of distribution variants somatotype in healthy and patients with acne boys and girls from Podilsky region of Ukraine.
Material and methods. Done clinical laboratory and anthropological examination of 84 patients with acne boys (mild severity - 42, moderate – 31, severe severity - 11) and 116 patients girls (mild severity - 72, moderate - 39, severe severity - 5) residents Podilsky region of Ukraine. The results are compared with data of anthropo-somatotypological survey of 150 healthy boys and 160 girls of similar age and region of residence from the data bank of scientific and research center Vinitsa National Medical University named after M.I. Pirogov. Used the following methods: general clinical - to verify the diagnosis and severity of acne [16]; anthropometry by the method of V.V. Bunak in modification of P.P. Shaparenko [19]; somatotype determination by the method of J. Carter and B. Heath [2]; statistical analysis of the results carried out in the license statistical package “STATISTICA 6.0”.

Results and its discussion. As a result of the research distribution of somatotypes in healthy and patients with acne boys and girls established: - greater (p <0.05) the percentage of boys mesomorphic somatotype among patients with mild acne severity (64.3%) than among healthy young men (46.7%) and greater (p <0.05-0.01) percentage of girls similar somatotype among patients with acne in general (39.7%) and among patients with acne of moderate severity (43.6%) than among healthy women (24.4%); - greater (p <0.05) percentage of healthy girls endomorphic somatotype (4.4%) compared with patients with acne girls in general (0%); - greater (p <0.01-0.001) percentage of healthy young men ectomesomorphic somatotype (22.0%) than in patients with acne youths in general (4.8%) than in boys and patients with mild acne severity (2.4%); - smaller percentage (p <0.05-0.01) in healthy young men meso-endomorphic somatotype (6.0%) than in young men patients with acne in general (15.5%) and the average severity of acne (22.6%).

It should be noted that not found significant, trends to differences in the percentage of people ectomorphic and medium intermediate somatotype as between healthy boys (respectively 14.0 and 11.3%) and patients with acne boys of general group, mild, moderate severity (according 15.3-14.3-16.1% and 6.0-9.5-3.2%) and between healthy (respectively 23.8 and 20.0%) and patients girls of all research groups (respectively 20.7-22.7-17.9% and 22.4-23.6-23.1%). Also in girls found no difference in representatives ecto-mesomorphic and meso-endomorphic somatotypes between healthy groups (respectively 12.5 and 15.0%) and patients of all study groups (according 15.5-9.5-22.5% and 10.3-12.5-7.7%). Also as in boys, and in girls not found significant differences or trends in the distribution variants somatotype between groups of patients with acne of various degrees of severity.

Among the variety factors of acne one of the priorities is to study constitutional features of a person, which, along with the same unmodified risk factors as age, gender, ethnicity, important to consider when assessing the cumulative risk of dermatosis [4, 14]. It has been proved that people who belong to certain physical types is susceptibility to various diseases, and one and the same diseases in different constitutions of subjects have different course [11]. It is natural to assume that course of acne will depend on the characteristics of constitution. So in researches Koshel M.V. [15] found that the severity of acne has pronounced inverse correlation with fat component of body weight and thickness of skin and fat folds. However, in our studies, between severity of acne and somatotype author, like other scientists [10, 12, 13] found no difference that explains heterogeneity of pathological process and needs to explore other parts of pathogenesis that affect the nature of the dermatosis.

In several studies has been shown relationship between hyperproduction of active androgens in the skin and acne. The high levels of testosterone and low estrogen levels was associated by authors with increased activity of the sebaceous glands and therefore with acne, dermatitis, accompanied by hyper seborrhea [3, 7, 18]. However, phenotype mesomorphic somatotype corresponds with prevalence of androgen and endomorphic - phenotype with a predominance of estrogen [3, 4]. That is why, compared with representatives of mesomorph somatotype in endorph developed of acne is less common. According to the survey results Hendohina Ya.O. [10] in boys of breast somatotypes acne diagnosed less common compared with boys of muscle, belly and uncertain Somatotypes. When analyzing the components of somatotype Chebotarev V.V. et al. [6] found that among patients with acne in 52% of cases observed prevalence of mesomorphic somatotype component, in 21.3% of cases - endomorphic somatotype component, and in 20.0% of cases - ectomorphic component of somatotype. The present study in relation to the given literature data allows to summarize and supplement existing information that investigated mesomorphic somatotype include the risk for the possibility of occurrence of acne.

Conclusion

1. Identified somatotypological criteria of sensitivity and resistance to impact factors of acne allow to predict risk of dermatosis during the pre-diagnostic nosology. In patients with acne compared with healthy young boys found significantly higher percentage of people mesomorphic and meso-
endomorphic somatotype and significantly lower percentage of people ecto-mesomorphic somatotype. In patients with acne girls compared with healthy girls found significantly higher percentage of people mesomorphic and a smaller percentage of endomorphic people somatotype.

2. Absence in boys and girls significant differences in the distribution of somatotype variations between groups of patients with acne of various degrees of severity proves that the clinical features of acne mild deterministic features of the constitution of human.

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In the article the cephalometric parameters which are used in the analysis of Charles H. Tweed International Foundation and their importance for young people Podilskiy region of Ukraine with orthognathic bite, assessment of sexual differences of these parameters and the comparison of obtained results with normative data which are used by Charles H. Tweed International Foundation and normative data of H. Stockfisch for the European population. Established gender and ethnic differences point to the need to create a normative base of cephalometric indicators used in the analysis of Charles H. Tweed International Foundation for the population of Ukraine.

Key words: lateral teleroentgenogram of the head, cephalometry, Ukrainian boys and girls, Charles H. Tweed International Foundation.

Throughout the time of anthropologists and artists try to explore and express the regularities of the human body. Quite a lot of attention is paid to the face as an element of craniofacial structures. Often-subjective concept beauty objectively trying to express in the form of proportions, relationships and dependencies. Particular importance acquire this knowledge, when there is a need for an objective distinction between "normal" and "pathology" when needed reconstructive surgery with a clear plan to change the size of the bone and soft structures. Also, this information is necessary in the treatment of pathologies of dentoalveolar structures, because the orthodontist can change the growth and development of the jaws, the position of the teeth and the ratio of all of the teeth-jaw complex, which directly affects the shape and structure of the soft tissues of the face. The need to understand the principles of building a harmonious and well-formed face of dentoalveolar structures has led to a huge variety of methods and techniques for determining the norms of certain facial parameters and head as a whole [5]. The most common and practical use is the method of studying the lateral X-rays of the head - teleradiography that today almost 90% of cases be a regular diagnostic records during orthodontic treatment [10].

According to a study conducted in 2008 in the US [10] from 17.2% to 27.3% depending on the year of the study, orthodontists in the USA used the cephalogram analysis by the method proposed by Charles Tweed. Despite the remoteness of the research approach and the philosophy of Charles Tweed, the first licensed orthodontist USA still relevant and in demand in today's science. His views and teachings, based on the analytical evolutionary approach, the analysis of a huge number of successfully and not successfully treated patients, have served as formation of an entire school and a large number of followers who have perfected and practiced this direction. Therefore, in consequence to the proposed in 1954 by Ch. Tweed corners FMA, FMIA and IMPA [20] his disciple and follower L. L. Merrifield [11] in 1966 proved and added an element of evaluation of the facial profile of the patient - a line «Z». In 1989, L. L. Merrifield and T. R. Gebeck [12] added to the analysis of the measurement front «anterior facial height, AFH» and posterior «posterior facial height, PFH» facial heights. In 1992, A. J. Horn [9] proposed to use the height of the index face «facial height index, FHI», and in 1995 J. F. Gramling [6] used the angles SNA, SNB and ANB. Today the method presented in the form of a comprehensive standardized research – «Craniofacial analysis of the Tweed Foundation» [3].

Research purpose - establish cephalometric parameters by Charles H. Tweed International Foundation for boys and girls Podilskiy region of Ukraine with orthognathic bite and compare results with data proposed as regulations.