



CHARACTERISTICS OF CLIMATE CONDITIONS OF STRATUM CORNEUM OF SKIN IN CONGENITAL ICTHYOSIS DISEASE SKIN CHANGES IN CONGENITAL ICTHYOSIS DISEASE

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This article examines the morphological changes in skin structures depending on climatic conditions in congenital ichthyosis and identifies morphometric parameters. Skin changes at different times of the year were compared and analyzed. Different aspects were identified during the analysis process.

Keywords: Ichthyosis; horn floor; thorny floor; suction floor; glossy floor.

ХАРАКТЕРИСТИКА РОГОВОГО СЛОЯ КОЖИ В ЗАВИСИМОСТИ ОТ КЛИМАТИЧЕСКИХ УСЛОВИЙ ПРИ ВРОЖДЕННОМ ИХТИОЗЕ

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✓ Резюме

В данной статье рассмотрены морфологические изменения структур кожи в зависимости от климатических условий при врожденном ихтиозе и определены морфометрические параметры. Изменения кожи в разное время года сравнивали и анализировали. В процессе анализа были выявлены различные аспекты.

Ключевые слова: ихтиоз; роговой слой; тернистый слой; всасывающий слой; глянцевый слой.

TUG'MA IXTIYOZDA IQLIM SHARTLARIGA BO'YICHA TERISINING KASHIQ QATTA XUSUSIYATLARI

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Ushbu maqolada konjenital iktiyozda iqlim sharoitiga qarab teri tuzilmalarida morfologik o'zgarishlar ko'rib chiqiladi va morfometrik parametrlar aniqlanadi. Yilning turli vaqtlarida terining o'zgarishlari taqqoslandi va tahlil qilindi. Tahlil davomida turli jihatlar aniqlandi.

Kalit so'zlar: ixtioz; stratum corneum; tikanli qatlam; assimilyatsiya qatlami; porloq qatlam.

Relevance

Ichthyosis is one of the most pressing problems in medicine. This situation necessitates the study of ichthyosis and the assessment of its epidemiological prevalence and the appointment of long-term treatment outcomes (1, p. 25, 4, p. 44., 9, p. 71, 11, p. 1463., 13.). s. 53., 15, p. 319., 17, p. 3083., 19, p. 51). The relatively high level of congenital ichthyosis, its duration, difficulties in treatment and its low effectiveness remain one of the most pressing problems facing medical practice and pediatricians. (2, p.45., 3, p. 74., 5, p. 22., 6, p. 767., 7, p. 884., 8, p. 11., 12, p. 3., 14, p. 248., 16, p. 245., 18, p. 607., 20 p. 182).



The purpose of the study: To determine the climatic characteristics of changes in the stratum corneum of the skin in congenital ichthyosis.

Materials and methods

Biopsies were taken from the skin of 82 patients aged 1 to 28 years born with congenital ichthyosis, and the obtained materials were stained with hemotoxylin eosin, Weigert and Von-gizon methods. Horn floor dimensions G.G. Avtandilov morphometric indices were determined. For the mathematical processing of the data, the Student method was used to determine the arithmetic mean M , the error m of the relative values m , and the reliability coefficient t of the difference.

Results and discussion

Changes in the skin of patients with congenital ichthyosis result in morphological and morphometric changes specific to the seasons. Changes in the corneal layer of the epidermis in the well-developed areas of granular, thorny cells and dermal suction layer are radically different from the changes in the corneal layer in areas with poorly developed granular, thorny cells and dermal suction layer of the epidermis (Fig. №1, №2). Seasonal changes in the glossy layer develop, and in some areas of the epidermis its disappearance, sometimes thickening, re-thinning is detected (Fig. №3). In addition, specific changes in the size of the horn layer are also detected. Significant morphometric changes are observed between such changes, especially at the intersection of seasons. The morphometric parameters of the horny substance in the well-developed and underdeveloped areas of the epidermal layer of the donor, thorny cell and dermal suction layer have specific indicators (Table №1, №2).

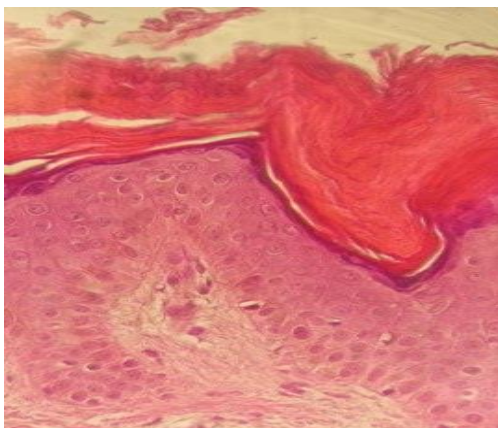


Figure-1. Appearance of the stratum corneum in the well-developed area of the dermal suction layer of granular, thorny cells of the epidermis in congenital ichthyosis. Painted in the Weigert method. Ob.40, ok.10

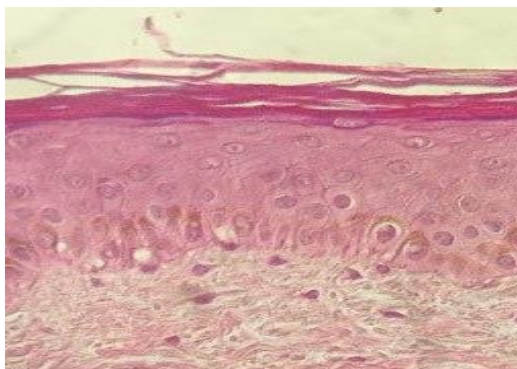


Figure-2. Appearance of the stratum corneum in the well-developed area of the dermal suction layer of granular, thorny cells of the epidermis in congenital ichthyosis. Stained in hemotoxylin-eosin. Ob.40, ok.10

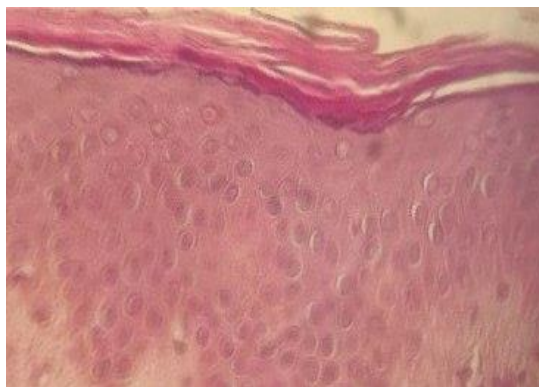


Figure-3. Appearance of the stratum corneum in the well-developed area of the dermal suction layer of granular, thorny cells of the epidermis in congenital ichthyosis. Stained in hemotoxylin-eosin. Ob.40, ok.10

Table №1

Morphometric parameters of the stratum corneum in well-developed areas of the epidermis granular, thorny cells and dermal suction layer (mkm)

№	Seasons	Horn floor
1	Summer	1,0±0,06
2	Autumn	2,1±0,14
3	Winter	1,75±0,11
4	Spring	1,4±0,22

Even in the summer, the thickness of the corneal layer in the well-developed areas of the epidermis of patients with granular, thorny cells and dermal suction layer of the skin is on average 1.0 ± 0.06 mkm. In October-November, the average value is 2.1 ± 0.14 mkm. In winter, the result in patients is 1.75 ± 0.11 mkm, while in the spring it is 1.4 ± 0.22 mkm. In autumn and winter, the average thickness of the horn layer is 1.92 ± 0.12 mkm, and in spring and summer it is 1.2 ± 0.14 mkm.

Table №2

Morphometric parameters of the stratum corneum in well-developed areas of the epidermis granular and thorny cells and the sucking layer (mkm)

№	Seasons	Horn floor
1	Summer	0,5±0,04
2	Autumn	1,0±0,16
3	Winter	1,6±0,12
4	Spring	0,8±0,01

In areas where the granular, thorny cells and dermal suction layer of the epidermis are not well developed, the values of the corneal layer are as follows: 0.5 ± 0.04 mkm in summer. In autumn, the average is 1.0 ± 0.16 mkm. In the winter, the mean values in patients averaged 1.6 ± 0.12 mkm, while in the spring they were 0.8 ± 0.01 mkm. In autumn and winter, the average thickness of the horn layer is 1.3 ± 0.14 mkm, and in spring and summer it is 0.65 ± 0.2 mkm.

Conclusion

From the above data, it can be seen that the formation of a horny layer in the epidermis of the skin in congenital ichthyosis varies depending on climatic conditions. Especially during the transition from hot weather to cool weather, ie in October-November, the thickness of the horn layer reaches its maximum, and by winter, the size of the horn layer decreases in the spring. The lowest size of the horn layer corresponds to the hottest summer months of the year. However, in hot climates, cracks in the horn layer develop. This occurs due to a decrease in moisture and an increase in dryness in the skin.

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