

and was found more prevalent in females as compared to males, except for smoking. Therefore, it is strongly recommended to implement a periodic screening program for high-risk patients, as well as the general population, and also start a public awareness program in order to prevent the risk factors at a primary level.

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Light and scanning electron microscopic investigation of the changes in hair with Dyskeratosis congenita

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Dyskeratosis congenita (DC), also called Zinsser-Cole-Engman syndrome, is a rare congenital syndrome characterized by atrophy and a reticular pigmentation of the skin, dystrophy of the nails and leukoplakia together with multisystem ectodermal and some mesodermal changes. The striking feature of the skin is the tan-gray mottled hyperpigmented or hypopigmented macules or reticulated patches that on some areas appear like a fine network. These lesions are located typically on the upper torso, neck, and face, although the extremities may also be involved. Other manifestations of the disease may be hyperhidrosis of

the palms and soles, bullous conjunctivitis, gingival disorders, dysphagia resulting from esophageal strictures and diverticula, skeletal abnormalities, aplastic anemia, mental deficiency, and hypersplenism.¹ Besides these manifestations, Yilmaz et al² indicated that the diagnosis of DC was made with typical skin lesions, dystrophic toenails, thin and sparse hair, and neutropenia with decreased myelopoiesis in bone marrow. There have been many articles on DC in the literature, but there have been few ultrastructural studies characterizing it. However, the ultrastructural evaluation of the effects of DC in hair have not been shown yet. We aimed to investigate both light and scanning electron microscopy imaging of hair with DC.

Hair specimens were obtained from 2 boys in different ages; one was 7 and the other was 9-year-old. Both children have showed typical clinical manifestations of DC. A total of 22 hair specimens picked from each individual have been examined. These samples were studied by light and scanning electron microscopes. For scanning electron microscopy, hairs were directly mounted on metal stubs, then sputtered with a 100 Å thick layer of gold in a Bio-Rad sputter apparatus. The specimens were examined with a JOEL SEM ASID 10 in 80 Kv.³ We evaluated hair specimens according to: shaft structure, cuticle pattern, filamentous-keratinized structures, and degeneration. Hair specimens taken from both patients had great similarities. In light microscopy, we examined thin and sparse hair with a longitudinal groove in the hair shaft and multiple patchy corruption of cuticle pattern (**Figure 1a**). In scanning electron microscopic examinations, we found some flattened areas, which disturbed the normal round shape of the hair shaft, and there were some cuticle irregularities in these regions and we also found, longitudinal groove or fissure like shaft changes with cuticular overlapping, the same as light microscopic findings (**Figure 1b & 1c**). Scanning electron microscopic examinations of the hair for different clinical syndromes could still be respected as new. Celik et al⁴ found destroyed cuticular pattern and degenerative areas on the surface of hair in Chédiak Higashi syndrome. They also found abnormal proliferation of cuticular cells, deformed hair surface structures in hair with hereditary trichodysplasia.⁵

Our study demonstrates the structural changes of the hair with DC in detail. Although our findings were not pathognomonic for DC, scanning electron microscopy might be used for distinctive diagnosis of DC. It can be used to differentiate hair with DC from other diseases effecting hair surface morphology. Scanning electron microscopy, is a multi-dimensional examination technique revealing easily comparable images. It is indispensable for diagnosis in various

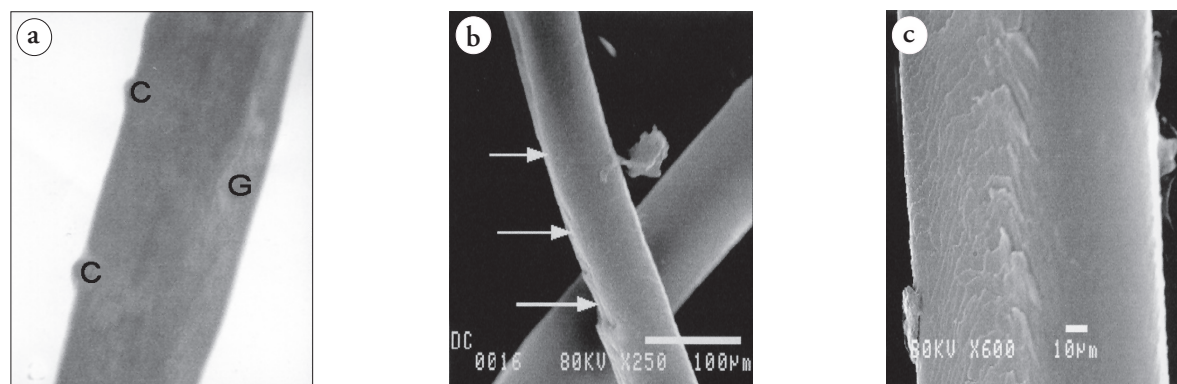


Figure 1 - a) A light microscopic image showing thin and sparse hair with a longitudinal groove in hair shaft and multiple patchy corruption of cuticle pattern. b, c). Scanning electron microscopic images showing flattened areas, which disturb the normal round shape of hair shaft with some cuticle irregularities in these regions. Also showing longitudinal groove or fissure like hair shaft changes with cuticular overlapping.

tissues as it permits considerable magnification. As it can be used in the Chédiak-Higashi syndrome⁴ and hereditary trichodysplasia,⁵ its routine usage in many dermatological hair diseases with surface alterations has resulted in valuable contributions to scientific literature. In the future, these unique scanning electron microscopic findings, that belong to the different multi-systemic syndromes, might be collected in an atlas for distinctive diagnosis of the diseases.

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Fundamental rights of infants are guaranteed in Islam - Breastfeeding is mandatory

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The Qur-an advocates breastfeeding as the recommended method of nourishing infants. There are several verses in the Holy Book, which put stress on the practice of breastfeeding. Every Muslim mother has to feed her baby with her own milk for the first 2 years of the baby's life. Some schools of thoughts from the Muslim world consider it mandatory for a mother to feed her milk for at least 2 years. Breastfeeding has many advantages as proven by the modern day science. Breastfeeding is not only beneficial to the child but also it is good for the mother's own health. It helps the mother to return to her pre-pregnant size and weight. It helps the uterus to involute under the effect of oxytocin secreted by the pituitary gland and released by reflexes through suckling. Breastfeeding protects the baby from diarrhea, chest infections, respiratory, and gastrointestinal diseases. Those who do catch the diseases are less morbid and have a much lower mortality rate than those who are bottle-fed. There has been a debate as for how long breastfeeding be continued. Unfortunately, there is no universally accepted position that clarifies the optimal length of breastfeeding. As far as the Qur-an is concerned, it is 2 years. This fact has been supported by World Health Organization (WHO) and United Nations Children's Fund (UNICEF), and investigated extensively and supported widely by