

attention to Dr. G. T. Elliot's* description of an "Adeno-cystoma intracaniculare occurring in a nævus unius lateris." The figures and description in his paper show that the case is structurally the same as mine. Like most tumours of sweat-glands described by dermatologists, the tumours were multiple. It is probable that single tumours are more likely to fall into the hands of general surgeons.

I am much indebted to Dr. Harold Spitta for the excellent photomicrograph he has kindly provided me with.

CASE OF LEUCOTRICHIA ANNULARIS ASSOCIATED WITH DEVELOPMENTAL AND OTHER PIGMENTARY DISORDERS.

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THE extreme rarity of the condition first described by Karsch as *ringed hair* ("pili annulati") is, I think, sufficient reason for placing this case on record.

Fred C., aged 8, first attended the Skin Clinic at Tottenham Hospital on August 16th, 1901, for a small patch of *tinea circinata*

* Elliot, *Journal of Cutaneous and Genito-Urinary Diseases*, Vol. XI., p. 168, 1893.

on the back of the neck. The typical fungus was obtained microscopically, and the disease speedily cleared up under a mild mercurial ointment.

Family History.—His parents were alive and healthy. The mother stated that during this pregnancy she was frightened by a runaway horse, and also upon another occasion by mice. A maternal uncle had webbed toes. There was a history of the presence of supernumerary toes on the mother's side. His only sister, aged 6, also attended the hospital for tinea tonsurans (microsporon). There was no tuberculous nor any marked neurotic family taint, as far as could be ascertained.

Previous Medical History.—He was said to have been "rickety as a baby," and suffered from numerous attacks of "bronchitis." When he was 12 months old a supernumerary toe was removed from the outer border of the right foot at a children's hospital. He has had no other illnesses.

History of Present Condition.—His mother, a very intelligent woman, first noticed the peculiar speckled condition of the hair when he was 3 months old, and thought little of it at the time, but seeing that it persisted she imagined that the child was becoming "prematurely grey." No treatment was adopted, as none was considered necessary. The growth of hair had always been plentiful, and no bald places had ever appeared upon the scalp. The boy was quick at school, and of rather an excitable disposition.

Condition on Examination.—He is a well-nourished and intelligent boy. Height, 3 feet 10 $\frac{1}{4}$ inches. Weight, 54 lbs. Every hair of the head presents a peculiar "speckled" appearance, and on closer examination is seen to consist of dark and light segments alternating with great regularity. The white segments have an average length of $\frac{1}{8}$ th mm., while the darker or brown portions measure $\frac{3}{10}$ ths mm. The hair is thick, and seen from a short distance presents a dark brown colour, the speckling not being then noticeable. There are no bald patches anywhere. In view of the fact that his sister had ringworm, a careful search was made for the fungus, but none was found. Microscopically, the dark and light segments do not alternate with that accurate regularity which the naked-eye appearance would seem to suggest, many of them seeming to be of equal length; but in the majority of the hairs examined,

especially the older ones, the brown portions are the longer. Viewed by ordinary transmitted light the white segments appear almost black or dark brown, but by reflected light they remain white and are seen to contain numerous highly refractile streaks and elongated air-bubbles. This development of and infiltration with air is confined to the medulla, there being always a narrow strip of normal cortical substance immediately exterior to the dark segments (by transmitted illumination). There is no thickening of the hair-shaft corresponding to these segments, which is an important point of distinction between this and the condition known as moniliform hair. This fact strikes the observer rather forcibly, as it might be expected that the presence of an abnormal quantity of air at a given localized portion of the hair would produce a bulging of the shaft at that particular point. It is worthy of note also that this peculiar speckling of the hair is not observable when the individual hairs are seen against a white ground, which fact made me think, when opening the paper wrapper containing them previous to examination in the laboratory, that I had made some mistake and was looking at a different specimen, but on placing some upon a glass slide and holding this over a black surface the speckled arrangement at once became obvious.

The hair is of medium texture, and it is not specially brittle.

The nails are of normal colour and consistency, and do not present any white spots or patches. (Cf. Unna's case, *vide infra*.)

The irides are blue-grey.

There are numerous patches of light brown pigmentation scattered irregularly over the abdomen, back, the front of the left knee, and the dorsum of the right hand. This condition of melanoderma has been present since early infancy, and has not manifested any tendency to spread, as far as the mother can tell.

There is a small scar on the outer aspect of the right foot, where a supernumerary little toe was removed when he was a baby. The second and third toes of the left foot are webbed.

The visceral and nervous systems are both normal.

Of the nine hitherto recorded cases of this affection which I have been enabled to trace, seven have been in males. The first case, described by Professor Karsch in 1846, was that of a young man aged 19. The peculiar speckled condition of the hair only attracted atten-

tion on close observation ; it was universal and was not hereditary. Karsch gave it the name of *ringed hair* ("pili annulati"), and classified it under the anomalies of colour-atrophy as a variety of canities. Landois, in a critical commentary of this case, founded the hypothesis that "by an intermittent irritation of trophic and vasomotor nerves a hair-tissue is formed within which a periodic interstitial development of gas takes place." A specimen of hair from this case was presented to the Museum of St. Bartholomew's Hospital by Professor Baum.

Erasmus Wilson, in 1867, described a similar condition in a boy aged 7, under the term "*Trichodyschroia*." The brown segments were double the length of the white, the two measuring together one-third of a line, a length probably equivalent to the growth of twenty-four hours. Wilson accepted the observations of Berthold, and supposed that the white or opaque segments grew at night, since they were shorter, as a rule, by one-half than the brown ones. A specimen of hair from this case is in the Museum of the Royal College of Surgeons. (No. 535.)

Crocker has recorded two cases, one in a man aged 30, in whom the moustache was affected, the condition being also associated with trichorrhhexis nodosa. The other was in a girl aged 8, in whom for two years the mother had observed this alteration in the appearance of the hair which began soon after an attack of contagious ophthalmia.

Frew (quoted by McCall Anderson) had under his observation a girl aged $9\frac{1}{2}$, in whom the silvery, striated appearance of the hair had been noted by the mother for a year previously. The father was quite hairless, and the grandfather was insane.

Galloway exhibited two cases of this affection in two brothers, aged 8 and 10 years respectively, before the Dermatological Society of London in 1896. The dark and light segments here alternated with accurate regularity, and the peculiar "lustreless" appearance of the hair, which is regarded as a characteristic feature of the disease, was well marked.

Brayton showed at the Dermatological Section of the Annual Meeting of the American Medical Association, in 1897, a youth aged 15. The condition was first noticed when he was 2 years old, when a barber declined to cut his hair "because there was sand in it which would dull his shears!" The hair was uniformly brown, and

the mother stated that two of her brothers had also hair of a like nature.

The cases recorded by Lesser and Bisher are, from their description, not those of leucotrichia, but of monilithrix, to which the term ringed hair (*Ringelhaar*) has unfortunately also been applied. The former observer quotes other cases of ringed hair reported by Luce and Behrend, but these likewise must be relegated to the class of moniliform hairs.

It is to Unna that we owe the term *Leucotrichia*, and by the qualifying adjective *annularis* he desired to denote specially the regular periodicity of the piebald speckling. In his case, that of a man aged 26, a joiner by trade, the condition did not affect all the hairs, but in some of them it was conspicuous on account of their dryness, greyness and fragility. Leuconychia was also present. No definite rule could be recognized in the arrangement of the white rings, which also varied considerably in size, some being mere points, while others were as wide as 2 to 3 mm.

Microscopically, the white bands were seen to consist of normal hair-tissue which was porous and filled with air. The medulla was the part most affected, and the air-containing cavities extended from it in an irregular manner towards the cortical substance. Unna put forward the theory that the condition was due to an alternate increasing and decreasing functional activity of the matrix of the hair.

With the exception of the above case, in which there was accompanying leuconychia, other pigmentary disorders have not been mentioned by other observers as occurring in leucotrichia annularis.

In view of our present somewhat limited knowledge of the ætiological factors concerned in the production of the various pigment-atrophies, the association of melanoderma and the congenital deformities with the condition of the hair in the case I have brought forward would rather appear to suggest some primary defect in the ovum than any acquired regressive disturbance of nutrition. Be this as it may, it is obvious that pigment-atrophy plays only one part in the causation of ringed hairs. We have yet to deal with a local, periodic pneumatosis—if I may employ such a word—having its origin in the medulla of the hair, obscuring the pigment from view, and ultimately causing its disappearance, possibly in accordance with the laws of pressure-atrophy. As has been stated before, this pressure

must be centripetal, since there is no local increase in the circumference of the hair-shaft at the white segments. From this fact alone, extra-bacillary infection may, I think, be excluded, in contradistinction to the superficially allied condition known as trichorrhæxis nodosa, in a variety of which Hodara succeeded in isolating a gas-forming bacillus.

Unna's theory—viz., that of an alternate increase and decrease in the functional activity of the matrix, would appear therefore, in the absence of more conclusive evidence, to be the most satisfactory explanation of this interesting abnormality.

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SOCIETY INTELLIGENCE.

DERMATOLOGICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, February 12th, 1902, Dr. PRINGLE in the chair.

The following cases and specimens were shown :—

Dr. COLCOTT FOX exhibited a young man, a railway clerk, the subject of the *acuminate form of Wilson's Lichen*. Disseminated over the trunk and limbs were miliary, acuminate papules, rather hard in consistence, rough to the feel, with a protruding horny spine, surrounded or not by a little congestion, and seated at the pilo-sebaceous follicles. This eruption was sparse, except on the legs, where every hair-follicle seemed to be affected. There was a marked