Subsequent, more extended investigation may throw additional light upon the subject. In the mean time, it is well to be aware that such changes in the lower part of the œsophagus are not unfrequently found a few hours after death. It will render us cautious in our attempts to pass instruments into the stomach under certain circumstances; and it may serve to prevent the suspicion of undue violence having been used in cases where, as in No. 1, discoloration or perforation of the œsophagus is found after the stomach-pump has been used.

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St. Mary's Hospital.

REMARKS AND CASES ILLUSTRATIVE OF THE TREATMENT OF ECZEMA.

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It never seems to be worthless in a science, which is necessarily subject to so many causes of variety and uncertainty in its phenomena as that of medicine, to record definite results. For if they be true and good facts, they either give corroboration to the conclusions arrived at by others, or else they show that those conclusions are incomplete, and do not embrace the whole truth relating to the matter in question. These considerations lead me to state briefly what experience I have had of the treatment of eczema, which Dr. Burgess describes as "perhaps the most frequent, as well as the most troublesome, cutaneous affection that the practitioner will meet with in practice." The treatment advised by those who have written upon the subject varies a good deal. Mr. Hunt, premising antiphlogistic remedies if there be any inflammatory action, relies in the main upon arsenic, neglecting or altogether disapproving of local applications. Mr. Startin uses arsenic alone, and in various combinations, as well as iodide of potassium, colchicum, digitalis, bichloride of mercury, etc., internally, together with various local applications, both ointments and lotions. Dr. Burgess holds "greasy applications under any circumstances as barbarous and often injurious remedies in the treatment of cutaneous disease"; he employs mineral acids, liquor potassæ, and bicarbonate of potash, cantharides, iodide of mercury, arsenical preparations, especially Donovan's solution; tonics, as citrate of iron and quinine; as well as various washes locally. Professor Bennett, of Edinburgh, believes that keeping the affected parts moist is all that is necessary, and only employs an alkaline lotion on account of the hardness of the Edinburgh water. Dr. Neligan employs also an alkaline lotion, or citrine ointment (the latter in chronic and languid cases), administers alterative doses of hydrargyrum cum cretâ, with iodide of mercury, and enjoins milk diet.

I have notes of about forty cases, for the most part outpatients, at St. Mary's Hospital. Some of them might perhaps have been more properly classed as impetigo; but I do not love straining after subdivisions, and I group them together, because they all had the same general easily recognised features; viz., the pouring out of an exudation, which was serous or sero-purulent, from a more or less inflamed and excoriated or superficially ulcerated surface. Out of forty cases, fifteen were below the age of five years, and twenty-three below that of ten. The cases occurring in children have generally appeared to me by far the easiest to manage; as indeed is the case with most of the diseases of the young frame, yet sound and "integer vitæ". The treatment which I now adopt invariably in such instances (it being understood that active inflammation is not present), is to give a minim of liquor potassæ arsenitis three times a day to a child one year old, desiring all scabs to be removed carefully, and dilute citrine ointment (3iiss to 3vss) to be rubbed into the affected parts once a day. I have often given a few drops of liquor potassæ conjoined or not with a grain of iodide of potassium, with

the above dose of Fowler's solution; but it has not appeared to me to be of any particular advantage; and I now mostly use the arsenic alone. Instead of the citrine ointment, I have used in several cases zinc ointment with nitric-oxide of mercury (3j to 3ij), or unguentum hydrargyri ammonio chloridi diluted, or bichloride of mercury lotion (gr. v-x to 3ij). I am not very sure, however, that one has any particular advantage over the other, except that the zinc and nitric-oxide combination, especially if about a drachm of subcarbonate of lead be added to it, seems to be best suited to irritable excoriated surfaces pouring out much discharge. With this treatment, I have every reason to be quite satisfied; the only thing that I feel some hesitation about is, whether some amount of relapse may not take place when the remedies are discontinued. However, as I do not find that any discharged cases return again upon my hands, except in rare instances, I think relapse cannot be very frequent. In one case, I tried the effect of dilute citrine ointment alone, and it unquestionably did good; but the eruption was not satisfactorily cured without the administration of arsenic. In this class of cases, I have not attempted any particular restriction as to diet, and have not found it necessary. With regard to the action of the arsenic, I believe it operates as a tonic to the nerves of the affected part, induces constriction of the vessels, and therewith diminishes the abnormal hyperæmia, and arrests the discharge. This view of the *modus operandi* of arsenic in curing skin diseases was first put forth by me in a paper published in the *Lancet* for July 21st and 28th, on paralytic conditions of the sympathetic. I there pointed out that the same tonics that cure neuralgia, cure ague, in which vascular congestion is the prominent feature; and I stated that it seemed to me reasonable to consider that in the one case the remedial action was exerted on the cerebro-spinal, in the other on the sympathetic nerves. If we know that a drug has a determinate action in one instance, affecting one particular tissue, is it not exceedingly probable that in other instances, where its action though certain is more obscure, it also acts in a like manner? Thus we have three facts perfectly well ascertained, and which might be regarded as having no mutual relation; viz., 1, that arsenic cures neuralgia; 2, cures ague; and 3, cures skin-diseases. Now, if we did not know that palsy of the sympathetic causes congestion of the vessels to which it is distributed, and in states of debility even inflammation, we could not see how there should be any affinity between neuralgia, ague, and skin-disease. But the experiments of Reid, Bernard, and others, have shed such a light on the relation of the nerves to the blood-vessels in many pathological processes, as can only be appreciated by the observant and philosophic medical practitioner.

In the class of cases of which I have been speaking above, the eczema is supposed always to be in a chronic state, or at least that there is no sthenic inflammation. This condition is of absolute necessity, for if there be active inflammation arsenic will prove most injurious, increasing the vascular congestion, and aggravating the disorder. Why? Probably for this reason, that arsenic exerts an irritant action upon the tissues, as well as a toning one upon the vessels, and may thus, if the former action predominate on account of the already morbid condition of a part, increase existing inflammation. No one has appreciated this better than Mr. Hunt. Arsenic (as he states) is by no means always necessary to the cure of inflammatory eczema; saline aperients, with colchicum and magnesia, or alkalies, will alone subdue the disease. This is analogous to the case of gastric catarrh in persons of high tonicities and sthenic system. All that is necessary is to subdue the inflammatory action; as soon as this is effected, the parts spontaneously return to their natural state; and far from needing, will not even endure tonics.

Between the chronic and the inflammatory cases there is an intermediate class, mostly made up of adults, in which the beneficial action of arsenic appears to be decidedly promoted by combining it with alkalies, iodide of potassium, neutral salts and colchicum, the whole dis-

solved in some bitter infusion. These, no doubt, promote excretion and elimination, previously defective, and bring the general system into a healthier state. One may compare their action with that of calomel in preparing the way for quinine in the treatment of ague complicated with hepatic and intestinal disorders. With regard to the dose of arsenic, I have generally found four or five minims, three times daily, quite sufficient even for adults. In the case, however, of a girl, aged 9 years, I found it necessary to increase the dose of Fowler's solution up to fifteen minims three times daily. Under these large doses she was nearly well when I last saw her—no steady improvement having been produced by smaller. If prescribed alone, I follow Mr. Hunt's recommendation of giving the arsenic at meal-times; if conjoined with alkalies, I prefer to give it three hours after the meal. Out of all the cases in which I have given arsenic (no inconsiderable number, including the neuralgic), I can remember but very few in which it has disagreed, and even in these it is very likely that a smaller dose would have produced no inconvenience. Almost invariably it is borne well by children, and improves their health decidedly. My experience of it, whether in neuralgic affections, or in skin-diseases, is, that it is a most valuable tonic, and I have yet to learn why we should be at all shy of giving it. So far from any disorder ensuing when the cutaneous discharge is checked, I have found the health materially improved. As to Mr. Hunt's precept of producing some degree of conjunctivitis in order to obtain the full curative power of arsenic, I cannot say that I have generally found it necessary to do so, though I am convinced that the healing process goes on very favourably when this has been the case; and I am sure that so long as the conjunctivitis is moderate, there is not the least reason for interrupting the use of the remedy. Scrofulous ophthalmia, with its attendant photophobia, I have not found to cause any impediment to the use of arsenic for a coexisting eczema. The state of the eye and of the face improved together in the case I allude to. The arsenic was combined with iodide of potassium and alkali; and cod-liver oil was given at the same time. I have met with a few cases of eczema figuratum, in which the local disorder was exceedingly severe, while the general health was perfectly good. The affection commenced in one instance as "pimples", with a trifling discharge. These spread, and produced signs more or less perfectly and regularly circular, in which the skin was congested and tumid, with thin superjacent crusts, especially at the margins, and minute pustules or pus containing vesicles all over the interior area. The arms and neck were affected. The patient never had had syphilis. In spite of all I could do, the disorder advanced, the patches on the arms and face became greatly swollen and inflamed, and those on the face suppurated at various points, the whole thickness of the cutis becoming at last involved. The affection seemed to manifest a decided affinity to carbuncular and furuncular disease; and in one case less severe, as the eczematous patch got well, a large furuncle ("as big as a hen's egg") formed and suppurated in its immediate vicinity. This furuncle was preceded by an eruption of lichen urticatus, which came out at night, or whenever the patient was heated. Thus vesicular, papular, and furuncular disease, occurred in close connexion with each other.

The following cases may serve as illustrations and further extensions of the preceding remarks:—

CASE I. A. Ph., aged 4 years, a female, was admitted on February 6th, with severe suppurating eczema of the ears, chin, and lips: she was cachectic in appearance, but was said to be strong generally. In my absence, a friend prescribed a weak alkaline lotion and oiled silk; but this was of no avail.

February 12th. I directed the following ointment to be applied to the affected part:

R Unguenti zinci ʒi,
Hydrargyri nitrico-oxidi ʒi. M.

A drachm of the following mixture was ordered to be taken three times a day:

R Liquoris potassæ arsenitis m℥,
Aque ʒiij. M.

February 19th. The patient was much improved. The mixture and ointment were continued; and a drachm of cod-liver oil was ordered to be taken three times a day.

February 26th. There was improvement: but a good deal of eczema was still present in the fold of the ear. The mixture and ointment were continued: and a drachm of the subjoined mixture ordered to be taken three times a day:

R Liquoris potassæ arsenitis m℥xxx,
Aque ʒiij. M.

March 1st. Improvement continued: but there was some catarrhal affection of the chest. Three grains of citrate of iron and quinine were ordered to be taken in two drachms of water three times a day. An ointment was prescribed, consisting of:

R Unguenti hydrargyri nitratis ʒiss,
Adipis ʒivss. M.

March 26th. The patient was quite well, having improved steadily under the use of the tonic and ointment. The local applications certainly did not do harm, and I am confident that they did amend the skin disorder.

CASE II. Ch. W., aged 4, a male, was admitted May 25th. He had been ill seven months previously with an attack of typhus fever. He was very subject to diarrhoea. He had a patch of eczematous eruption in the fold behind the right ear, where the skin was very deeply fissured at one part. Other patches existed on the scalp. The urine was rather high coloured, and offensive. He had had pertussis, measles, and variola. I ordered him

R Liquoris potassæ arsenitis m℥xxv,
Liquoris potassæ ʒiiss,
Infusi gentianæ co. ʒiij. M.

Sumat ʒij ter die.

R Hydrargyri bichloridi gr. v,
Aque ʒij.

Solve, ut fiat lotio.

June 1st. The urine was absolutely colourless; it deposited pale lithates in small quantity, with oxalates; it was feebly acid, and not albuminous. Hydrochloric acid threw down no uric acid. This examination showed that the assimilative processes were very languid.

By June 22nd he was quite well; the only trace of the eruption was a little congestion of the integument. Debility was a marked feature of this case; and the tonic influence of the arsenic told well.

CASE III. M. H., aged 15 months, a female, was admitted March 22nd. She had been ill four months, and was emaciated. The bowels acted six or seven times a day, producing dirty white stools. She craved for drink, but did not eat much. The tongue was clean; there was not much febrile action. She was very fretful. She cried during defæcation. No blood was ever seen in the motions, but much slime. She slept well. The following medicines were prescribed.

R Misturæ olei morrhue ʒxi,
Liquoris opii sedat. m℥ij.
Tincturæ catechû ʒj. M.

Sumat ʒj. quatuor die.

R Hydrargyri c. cretâ,
Pulveris Doveri, aa gr. j. M.

Fiat pulvis omni nocte sumendus.

March 29th. The bowels were more quiet; they were open only once this day; the motions were much more healthy. A canine tooth was just through. A spot of eczema was present on the scalp. She had been ordered the last three days an enema of liquor plumbi diacetatis with opium. Dilute citrine ointment was ordered to be applied to the eczematous patch.

April 5th. The bowels were quite quiet. A drachm of cod-liver oil was directed to be taken three times a day, and the ointment was continued.

April 12th. There was much more eruption on the head; otherwise the patient was better. The skin was cool. She was thin, cachectic-looking, and fretful. The oil and ointment were continued.

R Liquoris potassæ arsenitis ℥xviii.
Aque ʒij. M.

Sumat ʒj ter die.

April 16th. The health improved, but the eruption mended slowly.

May 11th. The eruption was better, but the patient was sick after food. One tooth was coming through. The oil and ointment were continued; and half a drachm of the mixture was ordered to be taken three times a day, instead of one drachm.

May 17th. The child took her food better, and was not sick; the eruption was improving.

May 24th. She was more fractious. The head was well. The bowels were in good order. I lanced the second molars, which, however, were not very forward. The medicines were omitted.

May 31st. The head was well, and the child was in good health.

This child was an unfavourable subject, emaciated by diarrhoea, and cachectic. The eruption appeared after the diarrhoea had stopped; but although dentition was going on at the same time, the cure of the eczema was effected without the production of any other disorder, and with manifest improvement of the health.

CASE IV. Elizabeth S., aged 56, a female, was admitted March 19th. She was pale, and had been ill three months with eczema of the hand, of rather sthenic character: the parts were unduly warm. The pulse was rather excited; the urine was natural.

R Liquoris potassæ arsenitis ℥iv.
Potassæ bicarbon. gr. xij.
Vini colchici ℥vi.

Infusi gentianæ comp. ʒj. M.

Fiat haustus ter die sumendus.

R Unguenti hydrargyri nitratis ʒj.
Adipis præparatæ ʒiij. M.

Fiat unguentum.

March 22nd. There was no fresh eruption.

March 29th. The eruption was not improving; the skin was hot. The eruption was very marked between the fingers, and along their inner sides. The bowels were open twice a day.

R Misturæ magnesiæ cum magnes. sulphate ʒj.
Vini colchici ℥v. M.

Fiat haustus ter die sumendus.

April 2nd. The mixture acted decidedly as an aperient; she felt cooler.

R Unguenti zinci ʒj.
Plumbi subcarbonatis ʒj. M.

Fiat unguentum.

April 9th. The hand and arm were much cooler; the eruption was improved. The treatment previously employed was continued.

April 16th. The hands were almost well; but some tendency to recurrence showed itself.

Purgative treatment effected much more in this case than alkali and colchicum in combination with arsenic. The unduly elevated temperature of the affected parts showed that a degree of active inflammation existed, which rendered the employment of arsenic unsuitable.

CASE V. L. Ch., aged 30, a female, of healthy aspect, in tolerably good health, was admitted Feb. 19th. She had been ill one month. She had had three children living, and two miscarriages lately. She had severe eczema of the left side of the neck and lower part of the face, extending to the ear; and there was some affection of the right side about the ear. The whole skin of the face was rather congested and rough. She never had anything of the sort before. The skin was cool; the pulse weak; the bowels were costive; the urine natural.

The following ointment and mixture were prescribed:

R Unguenti zinci ʒj.
Hydrargyri nitrico-oxydi ʒj. M.

Fiat unguentum.

R Liquoris potassæ arsenitis ℥v.
Potassæ bicarbon. gr. xv.
Vini colchici ℥v.
Infusi gentianæ comp. ʒj. M.

Fiat haustus ter die sumendus.

Sumat misturæ albæ ʒj omni alternâ mane.

March 1st. There was much improvement; the skin remained congested, and with thin scurfy flakes upon it here and there.

March 8th. There was much improvement; but the skin remained congested. The medicine was continued; and the following lotion was prescribed:

R Liquoris plumbi diacetatis,
Aque destillatæ, aa ʒj. M.

Fiat lotio.

I have not seen her since; but although the cure was not quite complete, it was sufficiently so to show that the right path had been entered on. What remained was to give tone to the weakened vessels of the affected part; and I believe it was for this I prescribed the strong Goulard lotion. Perhaps, at the last date, Fowler's solution, with bark, or a simple bitter, would have been more effectual than in the combination first given. In other cases of eczema, and also of squamous eruption, I have found it a very difficult thing to get rid of the passive congestion which lingers in the original seat of the disease.

CASE VI. H. C., aged 27, an ostler, was admitted July 26th. He had been ill three months with eruption on the face, which affected notably the eyebrows and the left ear. It was vesicular, and discharged much, forming greenish yellow crusts. The skin of the eyebrows was rather tumefied. He had no syphilis. His health was pretty good; he had lately felt weak and low. The skin was warm; the pulse very weak.

R Unguenti zinci ʒj,
Hydrargyri nitrico-oxydi ʒss. M.

Fiat unguentum.

R Liquoris potassæ arsenitis ℥v,
Potassæ bicarbon. gr. x,
Vini colchici ℥v,
Infusi gentianæ comp. ʒj. M.

Fiat haustus ter die tribus horis post cibum sumendus.

Aug. 2nd. The eyebrows were very much improved, but the inner part of the right upper lid was much swollen and inflamed. The skin was warm; the pulse was good. The treatment was continued.

Aug. 9th. The eye had been much swelled, but was now well; the eruption was quite gone.

I doubt much whether the ocular inflammation in this case was occasioned by the arsenic; I rather regard it as an extension of the original disease.

CASE VII. S. S., a porter, aged 50, was admitted April 13th. He had been ill three or four years. The veins of the right leg were extremely enlarged and varicose; those of the left less so. The right leg was affected with chronic eczema; there were patches of *eczema figuratum* on both wrists, or in their vicinity; and diffused eczema on the arms and forearms. He had little sleep at night from the irritation. The urine was very red and thick. The pulse was of tolerable force; the bowels were regular; he digested his food well.

R Potassæ bicarbonatis ʒj.
Potassæ acetatis gr. x,
Vini colchici ℥x,
Aque ʒiss. M.

Fiat haustus ter die sumendus.

R Liquoris plumbi diacetatis ʒss,
Aque destill. ʒivss. M.

Fiat lotio.

R Unguenti hydrargyri ʒij.
Hydrargyri nitrico-oxydi ʒj,
Adipis ʒj. M.

Fiat unguentum.

A bandage was applied to the right leg.

April 27th. There was improvement; he had a great deal of itching and starting when he got warm in bed at night.

Sumat hydrargyri chloridi gr. iss. omni nocte.

Sumat misturæ albæ ʒiss omni mane.

The lotion and ointment were continued; and five minims of Fowler's solution were added to the mixture, in place of the colchicum wine.

June 1st. The man was improved a good deal; there were only some spots of fresh eruption on the leg. The urine the other day was quite natural, faintly acid.

June 22nd. He was now well.

This was a rather severe case of varicose eczema, and it did almost better than I had hoped, although the patient was very much about on his legs.

CASE VIII. T. G., a coachman, aged 32, was admitted May 28th. He was tolerably healthy in appearance. He been ill three months. On both forearms there were large circular patches, dull red, showing in some a tendency to heal in the centres, and to spread by the margins; in others, no such appearance was visible, the whole surface being covered with scabs. From some a weeping discharge was taking place. There were some small patches on the trunk. On the upper and outer part of the left forearm there was a large inflamed furuncle. The skin was quite cool; the pulse weak; the tongue was clean and indented. His appetite had been failing during the last two days, having previously been hearty. His urine was clear, not red, and free. The bowels were costive.

R Liquoris potassæ arsenitis ʒviiij,

Infusi gentianæ comp. ʒss. M.

Fiat haustus ter die sumendus.

R Unguenti zinci ʒi,

Hydrargyri nitrico-oxydi ʒj,

Plumbi subcarbonatis ʒj. M.

Fiat unguentum.

June 4th. There was much suppuration from the large furuncle; a small one was forming at the lower part of the same forearm. The eruption was declining, but at the same time was diffusing itself extensively; the eyes were not sore. The treatment was continued.

June 11th. The appetite was improved; the eruption was much improved.

R Liquoris potassæ arsenitis ʒxx,

Infusi gentianæ comp. ʒj. M.

Fiat haustus ter die sumendus.

The ointment was continued.

June 21st. The eyes were rather smarting; he felt tight at the chest. The tongue was clean. The eruption was improved much, and was nearly well. He was ordered to take half an ounce of the mixture three times a day, and to continue the ointment.

July 9th. He was now quite well, very little congestion remaining.

This was a well marked case of eczema figuratum; it differed from the cases of the same kind mentioned in the preceding remarks by the absence of active inflammation. In consequence of this, there was room for the remedial action of arsenic.

CASE IX. P. S., a coachman, aged 42 years, was admitted January 15th. He had been ill four days. His face was red. He had a large carbuncloid flat tumour on the left side of the scalp, and some swelling of the affected side of the head and neck. There was much pain across the forehead, which kept him awake. His mind had been wandering on the previous night. The swelling made him feel stupified. He felt very chilly. The pulse was very weak indeed; the skin very cool; the bowels were confined.

R Hydrargyri chloridi gr. iij,

Extracti colocynthis com. gr. vi,

Fiant pilulæ statim sumenda.

R Ammoniac carbonatis gr. ij,

Potassæ carbonatis ʒi,

Infusi calumbæ ʒi. M.

Fiat haustus ter die sumendus.

January 16th. A copious vesicular eruption had appeared on the scalp, neck, and chest, and the swelling had much subsided. He had no rest in the night from pain. Two grains of iodide of potassium were added to the mixture; the pills were continued.

January 18th. He was much better in himself. The scalp was scarcely swelled at all, but presented several excoriated patches, from which there was much discharge on the 17th. The mixture and pills were continued, and the following ointment was prescribed:

R Unguenti zinci ʒi,

Hydrargyri nitrico-oxydi gr. xv. M.

Fiat unguentum.

January 22nd. Complained of the ear being tender, and of uneasy sensations in moving the jaw. The scalp was much better; the eruption was scabbing. He slept well the night before last. The medicines were continued. He did not come again.

The point of interest in this case is the dissipation of a largish carbuncloid tumour by an eczematoïd eruption. This suggests the question how far skin diseases are to be regarded as eliminative actions. We have not data at present for the solution of this problem, but I may express the anticipation that they will be proved hereafter to depend partly on that great cause of chronic, and sometimes of acute disorder, viz., the precipitation of abnormal protein matters from the blood; and partly also on deranged innervation of the vessels and tissue of the part affected. In some cases, the first of these causes will be the most operative, in others, the second. Carbuncular and pustular eruptions seem to be the typical manifestations of the first cause, lichen and prurigo of the second. Dr. Burgess has some most valuable remarks bearing upon this subject.

CASE X. T. B., a bootmaker, aged 57 years, was admitted June 18th. He was rather pale, and had been ill six weeks. He had at first a strong itching in the head, attended with giddiness, preceded by strong pains in the head. After the itching, there came out an eruption, which was not very distinct, but appeared to be slight eczema. The neck felt stiff; the skin was cool; the pulse of good force; the bowels were open.

R Hydrargyri bichloridi gr. 1-10th,

Potassæ nitratis gr. vij,

Infusi gentianæ comp. ʒi. M.

Fiat haustus ter die sumendus.

Dilute citrine ointment was also prescribed.

June 25th. He had stiffness on both sides of the neck, and less itching, but much sensation of heat was felt on the scalp.

R Liquoris potassæ arsenit. ʒvij,

Infusi gentianæ comp. ʒi. M.

Fiat haustus ter die sumendus.

He did not attend again.

Though this case is incomplete, yet one can clearly trace the following pathological occurrences, viz., (1) disordered innervation of sympathetic nerves of cerebral vessels, allowing increased flow of blood to the brain, and thus producing giddiness; (2) derangement of sensory nerves of scalp, occasioning itching; (3) a slight eruption, probably the result of the disordered innervation. This case, then, is, in some measure, the opposite of the preceding. A somewhat similar one is mentioned by Dr. Graves in vol. iii of the *Dublin Quarterly Medical Journal*, at p. 342. A gentleman, aged 68 years, had an attack of hemicrania, affecting the right side. During this, each pain fell like a minute poignard implanted in the skin, causing intense agony. At last a minute pustule, that soon desiccated, appeared around each hair, and in a few days his scalp got well. During the height of the disease the engaged half of the scalp was red, but not erysipelatous. The hair did not fall off.

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