Clinical Cases.

A CASE OF HYSTERO-EPILEPTOID ATTACKS, WITH CONVULSIONS PRODUCED BY LOCAL IRRITATION OF THE SKIN.

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IN the following case¹ there were two points of interest. 1. A convulsive seizure could be brought on by irritating a spot on the chest, but only if a sufficient time had elapsed since the last attack. If the epileptogenous zone were touched within about an hour from the previous seizure, no effect took place; but after an interval sufficient to permit a certain accumulation of energy, as it were, the patient was at once struck down if touched on a spot between the right nipple and axilla. 2. Very frequent seizures of a hystero-epileptic character occurring in a child, whose family history pointed rather to true epilepsy than to a syphilitic taint, yielded at once to mercury and potassium iodide, after numerous other remedies had been tried to relieve them without success.

Amy R., a healthy-looking child of 11, presenting no signs of premature development, was admitted as an out-patient on March 8. The mother stated that she had of late been subject to convulsive seizures, falling down with a scream at all hours of the day and night. The family history showed that the father's father had been subject to fits, during one of which he was drowned by falling into a river. The father denied any specific taint. Patient is the fourth in a family of nine children. The eldest is now 17, six are alive and healthy, none have had any fits. The mother had no miscarriages. Patient was always quite healthy till three years ago, when early one morning she became suddenly insensible and convulsed. Similar attacks occurred at intervals during six months. No exciting cause was known, but the mother says she noticed that two upper canine teeth were cut at this time.

¹ This case was under the care of Dr. Laycock, by whose kindness I am allowed to publish the observation.

One month ago, without any discoverable cause, the fits began again. On an average one every hour has occurred during the night, nine during the day. These numbers have remained approximately the same. She generally falls down with a scream, if standing or sitting, and has cut herself in doing so, but has never bitten her tongue or passed her water during a fit. She lies convulsed for one or two minutes; the left arm is flexed and drawn across the chest, the hand grasping forcibly the right side; the trunk is bent forwards to the right, and the head brought down on the chest; the right leg is kicked to and fro spasmodically, especially in those fits which occur during sleep. The movements, in fact, resemble in an exaggerated form those which would be made by a child when tickled in the right axilla and trying to save itself. The mother has noticed that if she is touched at a spot on the thorax between the right nipple and the axilla, an immediate attack comes on, provided that none have occurred within an hour or two previously. This was tested in the consulting room, and a fit induced. She is said to have frequently retained consciousness through her fits.

March 25.—Admitted as in-patient, not having improved under treatment. *Present condition.*—She appears to be well-nourished and cheerful; the general intelligence and memory are very good; bowels regular, appetite fair; nothing abnormal noted in the respiratory or circulatory systems; no signs of approaching catamenia; says that she has sometimes just before a fit a creeping sensation passing up towards the right axilla.

March 26.—She had five fits while in the hospital during the afternoon of yesterday, and six more in the night, each one lasting some seconds only. They commence with a groan, the head falls forward, the left arm is flexed across the chest and the hand grasps the right flank, the mouth and lower part of face are drawn into a sort of grin. To-day a fit was induced by touching the chest in the region of the right nipple. The conjunctivæ were quite insensible during some of the attacks. Seventeen fits occurred in the 24 hours, each lasting about 60 or 90 seconds. She is being carefully watched to discover the existence of masturbation, or any allied cause for the attacks.

March 27.—Seven fits during the day. She is apparently quite insensible to pain during the attacks if tested by a pin. There is no cyanosis or stoppage of respiration.

March 31.—There is tenderness in the region of the left ovary. The left pupil is distinctly larger than the right, she has apparently red blindness in left eye, and the hearing is

only half as acute with the left ear as with the right. There is no albumen in the water.

April 2.—Pot. bromide up to gr. xx. in the dose; am. and sodium bromide, belladonna, ergot, oil and steel wine, and valerian are being tried in succession. A slight improvement has followed the use of two or three of these remedies, but they all fail to act after the first few days. The fits to-day are fewer, but stronger, and followed by much exhaustion, which has not been the case previously.

April 5.—One fit last night continued for about five minutes, and was accompanied by foaming at the mouth. The numbers of the attacks from the first inst. have been for each 24 hours 16, 19, 20, 21, 19. The bowels are rather confined, and the temperature is nearly a degree above normal.

April 15.—The daily chart records from 10 to 20 fits every 24 hours. There is full power over the sphincters, knee-jerks taken after a fit were normal; no ankle-clonus is present. No impaired intelligence or aphasia, and no loss of sensation have been made out. Between the attacks she eats and plays like a child in perfect health. When one comes on, she falls suddenly forward with a scream, remains rigid and huddled together for about a minute, has generally some convulsive movements of the arms and legs, chiefly on the right side; the left arm is often dragged over as before. The right side of the face twitches and the eyes are turned to the right. Afterwards she appears to wake up with a smile, and smooths her clothes mechanically, or if it is night, she turns over and falls asleep again quietly. On examination by the ophthalmoscope the discs were seen to be normal, the choroid was thinned at the periphery, and a few spots of pigment appeared through it. R. $\frac{6}{2}$ m.; 5 D. $\frac{6}{8}$ pi. Left, $\frac{6}{8}$ n.; 1 D. $\frac{6}{8}$ pi.

May 4.—The fits are much fewer in the day-time; at night she groans and mutters during the short time they last. The limbs become rigid at the commencement of an attack, and are then flexed. At times there is much exhaustion. In other respects there is no change. Nitrite of sodium is now being tried.

May 13.—Faintness and cyanosis having been produced, the nitrite was stopped finally to-day. The attacks are again more frequent yesterday and to-day.

May 15.—To-day 25 fits are registered in the 24 hours.

May 16.—To-day 8 fits only.

May 24.—The faradic current was applied sharply to spine and limbs.

June 1.—Frequent short applications of the battery, both by night and day, after fits have been tried. The fits, which have

for some time been getting fewer in the day-time, now cease to occur except at night, but the number in the 24 hours remains the same. Urethan, valerian, the bromides, and camphor monobromide have all been tried without success.

June 14.—From 6 to 28 attacks occur nightly. To-day the liquor hyd. perchlor. 3ss, potassium iodide gr. iii, and decoction of cinchona were given for the first time.

June 18.—The attacks have fallen to one in the 24 hours.

June 19.—No fits at all to-day.

June 30.—No more attacks; patient a little weak, but otherwise quite well; ordered to become an out-patient, and to continue her medicine.

July 20.—Remains perfectly well. Mother states that she has cut four molar teeth this year.

Sept. 6.—Has had no recurrence of the fits, and remains in perfect health.

The disappearance of the attacks when treated with mercury may of course have been only a coincidence, but the suddenness of the change rather points to a causal relation, possibly by the reduction of some enlarged gland. The induction of the fits by touching a special area resembles the effects produced in certain guinea-pigs under Dr. B.-Séguard. In them, after the division of the sciatic or other large nerve epileptic seizures occurred when the skin of the cheek was irritated; and similar cases have occurred in human beings.¹ It was, however, obviously undesirable to encourage these tendencies in the patient, but sufficient trials were made to establish the fact clearly, as well as the existence of a period in which irritation had no effect. Besides the problems suggested by this period of stable equilibrium, the child's statement, that "a creeping feeling" occurred before some of the fits in the region where a touch would often bring them on, is important with regard to the nature of an aura. Either what is subjectively known as an aura is purely central in origin, and if so, we must say that there was no analogy between it and the touches in this case, though both were equally followed by fits; or it is some local impression, such as the friction of the clothes, which, occurring when the central irritation is at its height, is perceived abnormally, and is the determining cause of a fit, just as much as the touches were.

¹ See, too, a paper by Dr. Arthur Gamgee in the 'Brit. Med. Journal,' vol. ii. 1878, on Hystero-Epilepsy, and the recent experiments by Mr. V. Horsley discussed before the Pathological Society, Nov. 1886. Is there not an analogy between the state of the central nervous system thus produced, and the tremor which appears peripherally for some time after section of a trunk nerve?