CHILDREN'S HOSPITAL, PARIS.

CASE OF ACUTE RHEUMATISM—PERICARDITIS—SUDDEN DEATH.

By P. HENNIS GREEN, M.B.

Alfred Begot, a boy, 14 years of age, was admitted into hospital October 11. For some time past the child had complained of wandering pains in the limbs, but not sufficiently severe to prevent him from working at his trade. On the 8th and 9th he experienced a general sense of fatigue, with headache, pain in the muscles of the neck, and uneasiness during the act of swallowing; in the night of the 9th the ankle-joints became red, swollen, and excessively painful; general febrile symptoms set in; and in the morning the elbow-joints were attacked in a similar manner.

Oct. 12. The child complains of headache; the face is red, and expressive of pain; the least movement makes him cry out; the knee-joints and the left ankle are red, swollen, and painful; there is pain, without swelling or redness, in the hip-joints, and in the right shoulder-joint; he also complains of severe pain in the muscles of the neck, and is unable to move his head; skin hot, but moist; pulse 112; bowels confined; no vomiting.

He was ordered to have poultices to the joints and frictions with an anodyne liniment along the thighs.

13. Passed a restless night; the knee and ankle-joints are less swollen; the wrist-joints are now attacked, and likewise the left elbow-joint; the abdominal muscles are excessively tense and painful; the testicles firmly drawn up; pulse 112, hard.

Ipecacuanha, fifteen grains;

Tartar emetic, one grain.

To be taken in two doses, one a half hour after the other.

14. The child says he felt somewhat relieved after the vomiting, but the symptoms are now the same as yesterday. Bowels still confined.

Tartar emetic, four grains, in a six ounce mixture.

To take a teaspoonful every second hour.

15. The child has taken the whole of the mixture without any effect on the stomach or bowels; there is no improvement in the child's state; all the joints of the hand are now swollen and painful, and also that of the great toe; the pain in the abdominal muscles continues.

To have six grains of tartar emetic as before.

16. Same general state; no stool yet.

Tartar emetic, eight grains.

17. The emetic is still completely tolerated; the pulse has fallen to 100; pain less severe.

Tartar emetic, ten grains.

18. The last dose of emetic produced vomiting; all the symptoms are alleviated; the ankle-joints are free from pain and swelling, but the rheumatic inflammation still exists in the right knee and hip-joint; pulse 96.

To continue the mixture.

19. The child vomited five times during the day, but passed no stool; he now feels constantly sick at the stomach; tongue moist and clean; no pain is now experienced, except in the abdominal muscles; the countenance, however, is expressive of deep suffering and anxiety.

To discontinue the mixture, and take a purgative enema.

20. The enema produced one evacuation; joints all free from pain, but the child's countenance is much changed for the worse; he complains of severe pain in the epigastric region, and in the left side of the chest, low down; each inspiration aggravates the pain; pulse 102; respiration 36. The patient continued in this state without any remarkable change, and died suddenly in the evening.

Examination Thirteen Hours after Death.

Head.—The membrane of the brain were moderately injected, and the cerebral substance healthy throughout.

Chest.—The pericardium contained about two spoonfuls of sero-purulent matter; the anterior surface of the heart, for about the extent of a square inch, was covered with false membrane of recent formation; over the rest of the organ there were numerous granules of a pale yellow colour; the serous lining of the pericardium was also covered with false membrane here and there. The cavities of the heart contained a good deal of dark blood. The pleura and substance of the lungs were healthy.

Abdomen.—The mucous membrane of the stomach presented a pretty deep injection and was softened in several points; the mucous lining of the small intestines was also much injected; there were a few ounces of serum in the cavity of the abdomen; the other viscera were healthy.

REMARKS.

In his late work on rheumatism, Dr. Macleod observes that the proportion of cases of rheumatic pericarditis is considerably greater in young subjects than in those more advanced in years. Of 226 persons labouring under acute rheumatism, and examined by Dr. Macleod, 8 were under fifteen years of age, and of these, four, or one half, had pericarditis.

That children, as well as adults, are frequently subject to rheumatic inflammation of the heart is perfectly true, but I do not think that the proportion is nearly so great as that indicated by Dr. Macleod; I have seen a much greater number of cases, and would not estimate it at more than one fourth.

The disease, however, may frequently be overlooked in children, because its symptoms are often very obscure, and seldom so well marked as they are in adults. Of this, we have an example in the case just related. The existence of rheumatic pericarditis was not suspected during life. On the day which preceded his death, the child was to all appearance considerably improved; the febrile symptoms had nearly disappeared, and the only unfavourable sign was a peculiar anxious and depressed expression of the countenance; on the day of his death, the expression of the countenance was of the same character, and there was some pain over the edges of the ribs at the left side; but this was attributed to irritation of the stomach caused by the tartar emetic; the pulse and respiration were not much accelerated, nor were the general symptoms of such a nature as to attract particular attention; yet the child dies suddenly in the evening without a struggle. To what are we to attribute this sudden and unexpected termination of the

disease? Probably to syncope. The softened and injected state of the mucous lining of the stomach and intestines is a point worthy of attention; I have more than once observed this condition in children who were rapidly cut off by some disease, while taking tartar emetic in high doses. It is not easy to say how far the remedy may have contributed to bring on this state of the mucous membrane, but the coincidence has been so frequent, that I should be unwilling to employ the Italian method in children, without the greatest reserve and caution.

FURTHER OBSERVATIONS ON THE VARIOLÆ VACCINÆ.

By ROBERT CEELY, Esq.

In the last volume of the "Transactions of the Provincial Association," Mr. Ceely has published some additional remarks on the variolæ vaccinæ. The object of Mr. Ceely, in this communication, is to furnish some data for the natural history of the disease, to collect information relative to the phenomena of the casual vaccine, and accumulate facts illustrative of the pathology and ætiology of the disease in its primary form. In the first part of his paper, Mr. Ceely relates several interesting cases of variolæ vaccinæ occurring in cows and milkers.

As to the cause of the development of the disease in the cows, Mr. Ceely gives several reasons which show the possibility of its having been transmitted from a close in which variolous effluvia was known to exist; but he does not affirm that such was the cause. The various appearances of the disease in its different stages are pointed out, as being points of much importance towards obtaining a correct knowledge of the vaccine disease in the cow.

In the *early* stage five of the milch cows appeared to have heat and tenderness of the teats, upon which, emded in the skin, were distinctly felt small hard pimples, which daily increased in magnitude and tenderness, and in a week or ten days rose into *blisters*, and quickly ran into brown and blackish scabs. At this period, when the teats were thus *blistered* and swollen and very tender, the constitutional symptoms were first observed—viz, sudden "sinking," or loss of milk, drivelling of saliva from the mouth, and frequent inflation and retraction of the cheeks, staring of the coat, "tucking up of the limbs," and "sticking up" of the back, and rapid loss of flesh.

In the *ulcerative* stage Mr. Ceely directs attention to the following circumstances, which must form the basis of our diagnosis:—

Vaccine ulcers are generally distinguishable by a rounded elevation, more or less manifest, of their outer margins, and a circumscribed induration of greater or less extent, of their base, with a proportionate depression in their centres of deeper ulceration, sometimes caused by a slough. But these characters are obviously influenced by several circumstances which must be taken into account when attempting

our diagnosis; the principle are—stage of the disease, texture of the tissues, site of the ulcers. It is necessary to know that in the early ulcerative stage of the severer forms of some other vesicles nearly as much induration, &c., is occasionally found, especially if the texture of the tissues is lax, and much mechanical irritation has been inflicted. If we can be positively assured that the above-mentioned diagnostic conditions have existed in any given ulcer for three or four weeks, or even longer, especially if it be removed from severe casualties, we may fairly presume that it is vaccine; and this presumption will be strengthened, if, under the circumstances, the ulcer be small, for such sized and circumstanced ulcers of most other vesicles, being for the most part superficial and sub-epidermic, speedily heal. But as the texture of the parts in which vaccine vesicles appear varies so much, and as their seat is not uniform in depth, and as elevation of the margin and induration of the base and depression of the centres of the consecutive ulcers are sometimes merely questions of degree (since time or stage is not always determinable), it is clear that uncertainty in judging of an individual ulcer must now and then happen. Out of this difficulty we often escape by finding a group of characteristic ulcers on the same animal, or a series of animals, clearly infected one from another. And when we have an opportunity of inspecting ten or twelve, to say nothing of thirty or forty subjects, we seldom fail to detect on some of them the elements of a safe and correct diagnosis, as late as the fifth or sixth week. Such condition of parts very rarely occurs in connection with ulcers resulting from other contagious vesicles, except on peculiar subjects, where the subcutaneous cellular tissue has suppurated and sloughed, and the cicatrising ulcer has a puckered surface and indurated margin. Most commonly this result is confined to the first subject attacked, which continues also to furnish a succession of milder vesicles for four or five weeks. It must be borne in mind, however, that the vaccine ulcer also is found coexistent with small superficial vesicles or bullæ, both on the teats and the upper, back, and hairy parts of the udder, of the same nature and possessed of the same harmless contents as the vesicles and bullæ which appear (at the acme, or on and after the decline of the vaccine), on the face, trunk, and limbs of children in high health, and in a few adults with irritable skins.

Several of the milkers were affected with casual vaccine, and from the matter thus furnished different individuals were vaccinated. The results are thus described by Mr. Ceely:—

The lymph taken from one of those affected (Joseph Brooks) was directly transferred to three of his younger brothers, a lad older than himself, and two infants. The primary symptoms in his brothers and the young man, aged 19, were manifest on the seventh day, but were mild. After the appearance of the areolæ, the secondary symptoms were promptly excited, and gradually increased till their decline. There was nothing remarkable in the character of the vesicles till the full development of the areolæ, when they became remarkably broad and flat, spreading outwards, turgid with lymph, bursting their walls, and, like those from which they were derived, followed by sloughs