nature of neuralgia may at times attack the ovary, an organ well supplied with nerves.¹ If so, it is reasonable to treat such a condition in the same way as neuralgia elsewhere. If drugs have failed, then operate. The injection of alcohol would hardly be recommended for ovarian pain, but the nerve supply, or a considerable part of it, if not all, may be cut off by simply dividing the suspensory ligament of the ovary. This, of course, means division of the ovarian artery and vein too, but the ovary will still have a sufficient blood supply to keep up its nourishment, and, that being so, ovulation and endocrine secretion should not be interfered with, unless the division of its nerve supply should so far impair these functions, which is not likely.

This treatment would particularly apply if there were only one remaining ovary in a patient who had not reached the menopause. The pain must be relieved in some way, and the ovary must be spared if possible. On the left side the division of the ligament may serve to straighten out the pelvic colon and thus help the flow of contents. No claim to originality is made here for the idea of dividing the ovarian nerve supply, but the suggestion seems a practical and reasonable one, and therefore I emphasize it.

I should like, in conclusion, to stress the two points brought forward early in this paper:

1. Diagnose neurasthenia last of all, after excluding all likely causes of pelvic pain.
2. In cases of pelvic pain make it a rule to examine first of all without an anaesthetic, even if such is necessary for a full diagnosis afterwards.

REFERENCE.

¹ Abel and McIlroy: *Proc. Roy. Soc. Med.*, Obstet. Sect., May, 1913, vol. 6, No. 7, p. 240.

DIPLOPIA IN ENCEPHALITIS LETHARGICA.

BY

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THAT diplopia is one of the earliest symptoms of encephalitis lethargica is well known. The diplopia may, of course, be that typical of an involvement of one or more of the extrinsic ocular muscles and may occur with or without a manifest squint, but cases also occur in which the diplopia cannot be attributed to this cause. The patient in the following case is typical of many who, during a recent epidemic of encephalitis lethargica in this city, applied to the ophthalmic clinics for relief of the diplopia.

A girl, aged 19, complained of diplopia. Two evenings before seeing me she had headache and giddiness and felt sick; on the following morning she awoke with diplopia; it was very troublesome when looking at distant objects, but was hardly present at all in near vision. There was no drowsiness. The temperature was 101°. There was no history of any recent illness. Examination of the eyes showed no ptosis, no manifest squint; the pupils were normal in size, equal, and reacted to light and accommodation. The movements of both eyes were normal. Both optic discs and fundi were normal. Examination of the diplopia showed it to be homonymous, with erect images, the unusual feature being that there was no alteration in the relative positions of the two images in any of the six cardinal directions of gaze. The first examination was carried out with the candle at 3 metres from the patient; a second examination at 5 metres showed the two images to be further apart than they were when the examination was performed at 3 metres, but again their relative positions remained the same in the six cardinal directions of gaze. On approximating the candle to 2 feet from the patient the diplopia ceased to exist in any of the six cardinal directions of gaze.

This case could not have been one of paresis of any individual muscle, as there was no increase in the distance between the true and false images in the direction of action of any muscle; nor could spasm of accommodation produce this type of diplopia, as in this case the double vision would have increased as the object was brought nearer the patient and diminished the further it was removed.

The diplopia disappeared in a week from its onset and the patient made an uneventful recovery, for the time being at any rate. No convergent squint ultimately appeared, as has happened with some of the patients under observation.

It is probable that these cases represent a rather rare condition of paralysis of divergence. Dunnington¹ of New York describes in detail three exactly similar cases occurring in an epidemic of encephalitis, and Holden² one such case, but these writers would appear to consider the condition to be one of great rarity, whereas in our series of cases this type of diplopia was so common as an early symptom that we began to regard it as pathognomonic of the disease in this particular epidemic. Another interesting fact was that this type of diplopia, with giddiness and rise of temperature, were the only symptoms complained of, and that many of the patients showed no other symptom but made a rapid recovery. That we were dealing with encephalitis lethargica was clearly manifested by the fact that a few of the patients with these symptoms developed the more serious accompaniments of the disease at a later date.

Duane³ points out that the power of divergence is an active as well as a passive movement, and is brought about by a simultaneous equal contraction of both external recti accompanied by a simultaneous equal relaxation of both internal recti. This complex action is controlled by a definite nervous mechanism, and the loss of power means an innervational disturbance and not a muscular defect. This mechanism is probably controlled by a centre situated close to the sixth nerve nucleus. This would explain the fact that these cases are often followed by convergent strabismus due to a sixth nerve lesion. In making a diagnosis, paralysis of divergence is easily confused with paresis of one of the internal or external recti muscles, but can be differentiated by observing that the diplopia does not increase in the direction of action of these muscles, and that the separation between the true and false images remains unaltered so long as the distance between the eyes and the object is kept constant.

REFERENCES.

¹ Dunnington: *Arch. of Ophthalmol.*, vol. lli. ² Holden: *Ibid.*, vol. I. ³ Duane: *Ibid.*, vol. xxviii.

PAROXYSMAL TACHYCARDIA IN AN INFANT.

BY

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IT will be of interest to record this case of paroxysmal tachycardia on account of the very early age of the patient, and because it is an outstanding example of the vast amount of distress a young child's heart will stand.

The patient was a female child, aged 8 months, and the attack lasted for eight days without cessation. The heart could at no time be counted, but was roughly estimated at somewhere about 200 to 300 beats to the minute. The onset of hepatic pulsation, Cheyne-Stokes breathing, and severe bronchitis during the illness all had apparently no detrimental effects on the recovery. The child is the youngest of a family of three, having been born quite normally and fed on the breast, and the breast alone, up to the time of the illness. She had been examined at the local clinic at about the age of 6 months, and was found to be a perfectly healthy, contented, and exceptionally well nourished baby. The mother and the other children are all quite healthy, and the former undoubtedly makes an ideal mother.

I was called to see the baby on a Thursday afternoon because the mother had become anxious about its condition during the previous night on account of vomiting and restlessness. The child had been ill the whole night, but the mother had concluded that she was tired by a journey into Cardiff and a long day out in the sun the day previous. The mother noticed that the urine had become scanty, the evacuations a trifle loose and green, and that there had been no desire for food; this was most unusual in a child who had been accustomed to be most hearty.

The baby, when I first saw it, was apparently in no serious condition; its cheeks were rosy, its breathing was natural, and it had all the appearances of a child who was in perfect health but who was apparently somewhat restless and irritable as the result possibly of an irritable tooth. The temperature was just 96°, but no pulse could be felt at the wrists. There was nothing to be discovered in its abdomen nor on rectal examination. The chest, as far as the lungs were concerned, was devoid of physical signs. The nervous system was normal, all the reflexes being present and

normal in response, but during the examination the child had one or two convulsive attacks of a very slight degree. On examination of the heart, however, it was found to be beating very forcibly and at such an extraordinary rhythm that it was impossible to count. There was, as far as one was able to make out, no valvular or muscular disease or deficiency.

On this evidence, the green stools, the convulsive attacks, and the extraordinary cardiac rate, I concluded that the child was suffering from intestinal irritation and toxæmia, and advised treatment with castor oil, hot baths, rectal wash-outs, and 1-grain doses of hydrarg. c. creta. The child seemed to improve after the first hot bath, but the heart did not slow down at all. A restless night followed, and when morning came I advised consultation with another practitioner, Dr. Owen Jones, who confirmed the bad prognosis. Dover's powder (1 grain) was given three times a day, and certainly afforded a little more rest that night, but had no effect on the heart, and the following day hypodermic doses of digitalin (1/100 grain) were continued every four hours, with brandy and milk by the mouth. On the evening of Saturday, as the child had not improved and the heart condition showed not the slightest response to digitalin, I further advised a consultation with Dr. Ivor Davies of Cardiff, who saw the child with me that night, but nothing fresh was discovered. Lumbar puncture was performed, and cerebro-spinal fluid, which was under great pressure, was removed to about 3 c.cm. It was clear, and to the naked eye normal. A hypodermic injection of camphor in oil was given and the digitalin was repeated every four hours throughout the night.

The following day, Sunday, there was still no change. The child was put back on to the breast and took the feed quite normally without distress throughout the day. The liver had become enlarged and pulsed, and the heart was a trifle outside the nipple line; the rate remained the same. Digitalin was repeated throughout the Monday, but had no effect on the heart. Doses of atropine sulphate (1/200 grain) were administered without effect. Cheyne-Stokes breathing set in on Monday night, and I concluded that the child could not live until the morning, although its appearance remained good.

On Tuesday the temperature rose to 102° and râles developed at both bases. The heart beat as rapidly as ever. Atropine was again repeated, with no success. A tight abdominal binder in place of a knitted one was applied that night, but it gave rise to such distress in so short a time that it was at once removed. On Wednesday the cough became much more distressing and the symptoms more alarming. A steam tent was fixed up, all stimulants were withdrawn as useless, and the breast feeds with meat extracts only were continued. On Thursday morning, the eighth day of the attack, the heart still continued in its delirium, after a rather more peaceful night, but the bronchitis seemed improved and the child seemed less distressed. About midday the nurse noticed a change in the child. Its pulse was once more to be felt at the wrist; it passed a large quantity of urine, and in every way seemed better. On examining the heart it was found to have regained its normal rate. The liver was once more its normal size, and the breathing was more natural.

In November, 1924, the child had another attack, which lasted only twenty-four hours. The heart had been carefully examined during the interval and found to be perfectly normal. An attempt was made to take an electro-cardiographic tracing, but the age of the patient made it most difficult. In spite of this a normal tracing was produced.

Note by IVOR J. DAVIES, M.D., M.R.C.P.

The infant was seen in consultation two days after the onset of the illness, and, although semi-conscious, was but little distressed by the tachycardia, being most comfortable when nursed in an almost upright position. The colour was good, and respiration, except for being a little hurried, was not embarrassed. The temperature was normal. The pulse could not be felt at the wrist, but was feebly present in the brachial arteries. The impulse was not palpable, the sounds were best heard in the fifth space just within the nipple line, and were clearly audible for a short distance outside this position, and tic-tac in character. There was no bruit. The rate was very rapid and could not be estimated with any degree of accuracy. The lungs showed a little congestion of the bases. The liver was palpable a fingerbreadth below the costal margin. There was no muscular spasm. The abdominal and tendon reflexes were normal. The lumbar puncture was performed without discomfort and with results as described.

A diagnosis of simple paroxysmal tachycardia was jointly made, because of the abrupt onset following some gastro-intestinal disturbance, the marked tachycardia, which was apparently unaffected by posture or the exertion of crying or by digitalis, and the absence of evidence of any underlying infection. This opinion was subsequently confirmed by a sudden termination with the passage of a considerable amount of pale urine. A guarded prognosis was given because of the signs of early heart failure, but on the whole our view inclined to recovery.

A firm abdominal binder caused discomfort and was discontinued. It was decided to rely mainly upon the small doses of opium and frequent small feeds, which were very well taken.

The occurrence, a few months later, of a second attack, with similar features but of brief duration, makes the diagnosis of paroxysmal tachycardia practically certain. The child appeared to be perfectly healthy and lively a little later when brought up for electro-cardiographic examination. After much difficulty the mother succeeded in keeping the child quiet for a few minutes, and a tracing was successfully taken. The record was normal in all respects.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

A CASE OF AVULSION OF THE PARTURIENT UTERUS.

In the spring of 1915 I was asked by my friend, the late Dr. X, to give an anaesthetic for him in a midwifery case he expected to attend in a few weeks. I declined to do this, but offered to help him in any other way if he required more assistance. I heard nothing for some little time, until one morning he asked me to see the woman, who had been confined during the night, as soon as possible. He told me that Dr. Y (now dead) had helped him, and I stipulated that Dr. Y should be told of my visit and asked to be present. The invitation was given, but not acted upon.

Upon arriving at the house Dr. X told me that Dr. Y had delivered the woman with forceps, and that he, Dr. X, had given chloroform. The woman had had several children and had always required help in this form. After the child was born Dr. Y removed the placenta (query, by traction on the cord), and, making a further vaginal examination, said, "There is a large fibroid hanging in the vagina; I think I can pull it out." Then, what Dr. X described as "a frightful struggle" took place, and eventually Dr. Y pulled a large mass out of the vagina, looked at it, and, without saying a word, took it downstairs with him. The patient bled furiously for a short time and became very ill. As soon as she rallied Dr. X went downstairs and found Dr. Y sitting gazing at the supposed fibroid, which was on a dish in front of him. Dr. X asked, "Is that the uterus?" and Dr. Y admitted that it was. They discussed what was to be done, and they decided to burn it, and the uterus was put on the fire and covered up with coal.

After upbraiding Dr. X for allowing the destruction of the specimen, I went upstairs to see his patient. She was very ill. Palpation of the abdomen proved the absence of the uterus, and this was confirmed when I made a vaginal examination to make sure that no intestine was prolapsed into the vagina. There being no complication of that sort, I decided that she had the best chance of recovery by not attempting her removal at that time. The vulva was cleaned up, an antiseptic pad applied, and all douching forbidden. Dr. X asked me to see her daily for a few days, and on the third day we were told that the woman was passing faeces from the vagina. We confirmed this, but made no alteration in the treatment, which consisted only of quiet, feeding, and external cleanliness.

After ten days or so I had her removed to the Southport Infirmary, where she could be better attended to. Some ten days later I had her taken to the theatre, and under a general anaesthetic, and with the assistance of Dr. W. A. Mackay, made a thorough examination. The uterus had gone. The opening into the abdominal cavity had healed up, the tear into the rectum was found high up in the vagina and was large enough to allow all faecal matter to pass through it.

As I had no permission to do any operation the woman was put back to bed and next day I offered to repair the recto-vaginal fistula after doing a preliminary colostomy. The woman declined to submit to this, and after she had regained her strength she was sent home. Dr. X some three or four years later told me that she had been sent to one of the Liverpool institutions for some operation, from the performance of which she did not recover.

Southport.

FRANCIS J. BAILDON, M.B., C.M.

CONCURRENT HERPES ZOSTER AND VARICELLA.

On January 26th I was called to a man aged 73. I found him suffering from very intense herpes zoster of the right side, running across the right scapula, under the right axilla, and slightly upward on to the right thorax. He was also suffering from well marked generalized and typical varicella, including papules on the scalp. He was not ill. Dr. W. S. H. Briand of this town kindly saw him with me on January 27th and confirmed the double diagnosis. Both eruptions were typical. The herpes zoster came out on