I Richard Sanders Rogers of Adelaide in the province of South Australia, B. A. Adelaide, M. B. Edinburgh, and M. C. A. Edinburgh do solemnly and sincerely declare and certify that the manuscript hereto annexed and entitled "Some Protean Aspects of Hysteria" which I now present as my thesis for the degree of M. D. in the University of Edinburgh has been written and composed entirely by myself without any aid from books persons or any other source whatsoever except in so far as I have acknowledged the same in the said manuscript

Declared and subscribed
at Adelaide the 4th
day of March 1893.
Before me

Richard Sanders Rogers

J. R. Anderson
Notary Public

THE SOUTH AUSTRALIAN MEDICAL BOARD.

Adelaide, 2nd March 1893.

I hereby certify that Richard Sanders Rogers B.A., M.B. & C.M. Edin.ᵍʰ, has been engaged in private practice as a medical practitioner registered in this Province, for a period of about five years

W. Austen Tate
M.B. & C.M. Edin.
Hon. Sec.

Chalmers Church Manse.
Adelaide, South Australia
7th March 1893.

Hereby certify that Richard Sanders Rogers Bachelor of Arts of the University of Adelaid and Bachelor of Medicine and Master of Surgery of the University of Edinburgh, who is by this mail forwarding his M.D Thesis, is constantly engaged in the practice of his Profession in this city and is therefore unable to present himself in person for the reception of that degree.

David Paton. D.D.

Minister of Chalmers Church Adelaide
and member of the Council and Senate
of the University of Adelaide

S

Some protean aspects of Hysteria

by

A.S. Rogers B.A (Adelaide): M.B. + C.M. (Edin.)

The two following cases, on account of their rarity, may justly be classed among the curiosities of medical science.

The first is an example of lethargic stupor, or so-called trance; the second a very unusual form of hystero-epilepsy.

In looking up the journals,* I have been able to find the records of twenty one authentic cases of trance during the last half century.

Of these, twelve occurred among females, and nine among males.

In seven cases, a distinct history of hysteria could be traced; in three, the patients were epileptic. Thus in nearly fifty per cent. of the cases, these two diseases might be regarded as predisposing causes.

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* In these researches, I have consulted the Lancet, the Brit. Med. Jour, & the Med. Times.

In twenty-four (24) per cent. the condition came on suddenly, without any assignable cause, in patients with robust health; in a small proportion it seems to have been due to great mental worry or shock; and in isolated cases it has complicated organic disease of the heart, enteric fever, insanity, & child-birth.

In one instance only, was there any history of uterine or ovarian trouble, and in this case the patient was markedly hysterical.

In almost all the records there is a provoking silence on the subject of family history, and in many there is not even a reference to the previous history of the patients, omissions which do not facilitate in-vestigations into the aetiology of this remarkable condition.

The disease is apparently one of early life. In the 21 cases to which I have referred, I find that the average age for females was 26, and for males 31 years, making a common average for both sexes of nearly 29 yrs.

Another noticeable feature is the small mortality. In 21 cases only one fatal result is recorded.

I have not been successful in discovering a single authentic instance in which the state of trance was mistaken for death, nor indeed any case in which such a mistake might have been considered pardonable.

Case I

The patient L. L. is a girl nearly seventeen years of age.

Her general health has not been good since the onset of menstruation, about four years ago.

Last July (1892) she developed anaemia, and then for the first time began to walk in her sleep, a habit which has since become habitual with her.

On several occasions during the last few years she has been subject to ordinary hysterical seizures.

Although there is no history of insanity in her family, both her parents are extremely neurotic.

The mother suffers from goitre & is also very hysterical; the father is phthisical.

Her present illness dates from the 20th Oct 1892. On the afternoon of that day she had a severe attack of diarrhoea and vomiting. She returned to her home the following morning, went to bed directly and at once started to sleep.

I saw her for the first time four days later. During the interval her friends had several times been able to administer a little fluid food, by shaking her into an irritable, semi-conscious condition; She had also had one of her attacks of somnambulism, when She carried a lamp into her brother's room at mid-night, spoke a couple of meaningless sentences, then returned immediately to bed and to sleep; and twice She had got up in a somnambulistic state to attend to her emunctories;—— otherwise she had slept Continuously.

On the 24th I found her sleeping quietly. I

Case I.- Trance.

could not succeed in waking her by shaking, pricking or pinching.

Her mother was rather more successful and the patient opened her eyes once or twice in response to her efforts, but quickly closed them again.

She resisted any attempt to make her sit up. There was no catalepsy.

Temperature normal. Pulse exceedingly feeble and difficult to count.

Pupils equal and dilated. The patient shut her eyes closely when I attempted to open them.

The patellar reflex was normal; the plantar reflex could at first be obtained,* though considerably delayed, but after a few trials it totally disappeared.

Slight pricks with a pin on the soles of the feet were not felt; severe pricks, (penetrating the subcutaneous muscles,) were followed by withdrawal of

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*In the right foot only.

the foot after a very distinct latent period.

Mild electrical stimuli to the soles produced no effect; strong faradic currents were followed by withdrawal after a distinct interval.

It was by this means that I succeeded in arousing her sufficiently well to give intelligent replies to my questions. She said that she had a pain shooting through her temples, & complained of great coldness of the feet, then she immediately relapsed into stupor. Her feet were cold to the sense of touch*.

The urine contained a good deal of uric acid, but no albumen.

She was put on large doses of Easton's Syrup and fed on eggs and custard.

Soon after this the patient began to have lucid

*The month of October is usually hot in this Country. At the time of taking my observations the thermometer registered abt 85° F in the Shade.

intervals and the reflex centres became less dull.

On the 26th Octr, I got the plantar reflex in the left foot for the first time, and I also found that the right leg was anæsthetic below the knee.

From this date the patient began gradually to recover. Her lucid intervals lengthened, and became more frequent, until the thirty-first (31st) October, eleven days after her seizure, when she was able to leave her bed for the first time.

The anæsthesia in the right leg had gradually dis= =appeared by the 7th Novr, her colour had to a large extent returned, and on that date she appeared almost quite well.

<u>Second attack</u>. On the 17th Novr however, she fell into another stupor and remained in that condition exactly a week.

During this period she absolutely refused to take food or medicine, and her friends

were unable to arouse her.

Three times daily a strong interrupted current was applied to the soles of her feet.

So dull were the reflex centres, that for the first two days, one to two minutes always elapsed between the application of the sponges and the resulting sensation and withdrawal of the foot.

During the whole of this week she was given hypodermics of Strychnine, at first 5 mins of the Liq Strychninæ thrice daily, and after the third day half a drachm per diem. The drug never produced the slightest toxic symptom, but under its use I could watch the latent period for electrical stimuli gradually shorten, until it was at length reduced to 30 secs.

The routine practice on these occasions was, first to give the hypodermic, then the battery, and when the patient became fully alive to what was going on, bully her into swallowing a cup
~~cupful~~

of beaten up eggs or custard, under threat of another application of the current.

She was extremely difficult to feed. After her meal, she invariably went off to sleep again.

During these periods of forced consciousness, she was evidently dominated by some delusion, and differed markedly from her normal self. A deep frown sat on her features, and she regarded those around her, (especially her mother, to whom she is deeply attached,) with looks of anger and hatred. It is difficult to imagine the suppression of a face so completely changed.

Throughout this week she had no spontaneous lucid intervals as on the former occasion. Her bowels were only opened once and her bladder emptied twice during that period. When she did attend to these calls of nature, she appeared to do so in a state of somnambulism.

On the 24th Nov. after

the usual application of the battery, she suddenly became conscious, knew the people in the room, seemed pleased to see her friends and without compulsion took nourishment.

Third attack. She remained well until the 12th January 1893, when she once more fell into a trance, in which the stupor was so intense, that I found it almost impossible to arouse her.

The faradic current had now to be applied for as long as six minutes before it produced any impression, and almost instantly on its* removal, she would again become lethargic.

I had to be satisfied with the administration of food once daily.

Her whole body was now so rigid that we were able, by placing our hands below the occiput and under the heels to raise it 'en masse'. Her arms too, were so rigidly

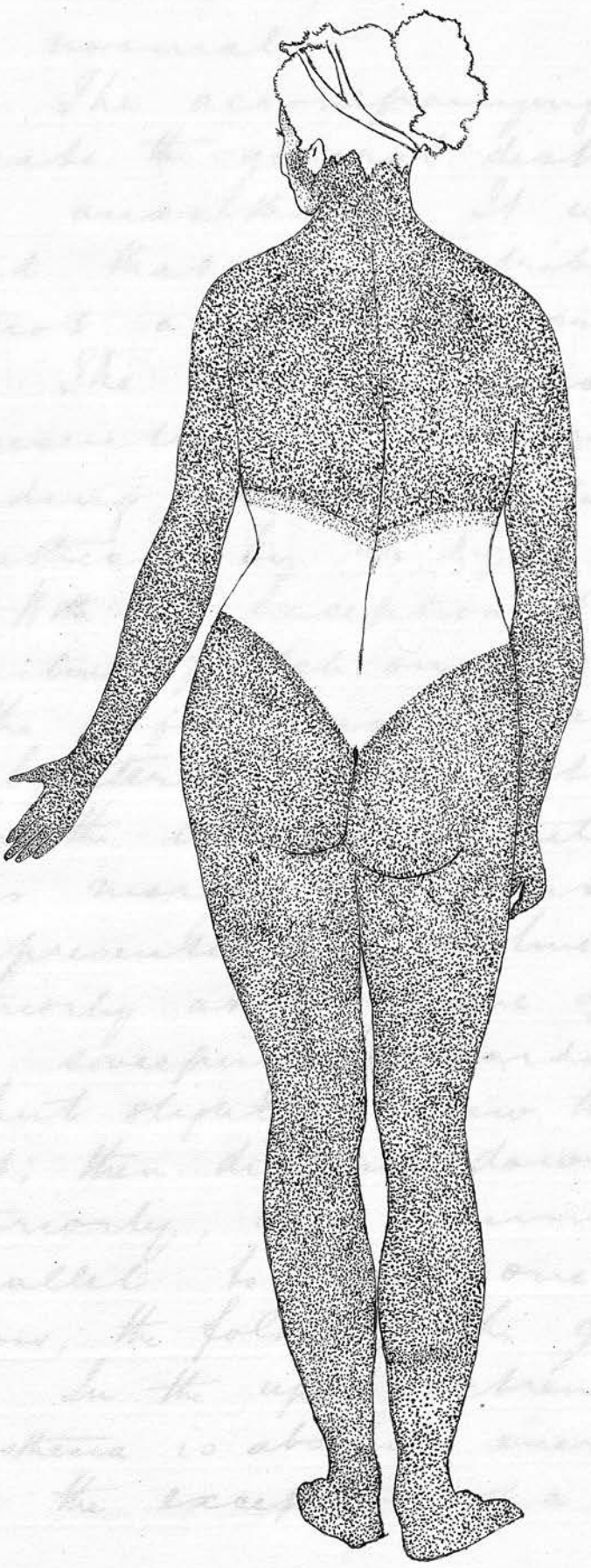
flexed across the chest, that it required the exertion of very considerable force to extend them at the elbow joints. They readily retained any cataleptic attitudes which were given them. The hands were tightly clenched, the soles of the feet incurved. I was quite unable to bend the leg at the knee.

The pulse was extremely weak and difficult to count. The heart beats averaged 60 per minute. The breathing was ~~slow~~ very shallow. Respir=ations 10 per minute.

This third attack was preceded by an ordinary hysterical fit, and the seizure terminated suddenly on the 19th January, exactly a week from its date of commencement.

Sequelæ. Next day (20th Nov.) it was found that almost her whole body was in a state of anæsthesia. Needles thrust through the flesh, in some instances to the bone, were evidently unfelt by the

Case I – Showing distribution of Anæsthesia – Back View.



patient. The punctures, in all instances bled, but less freely than normal.

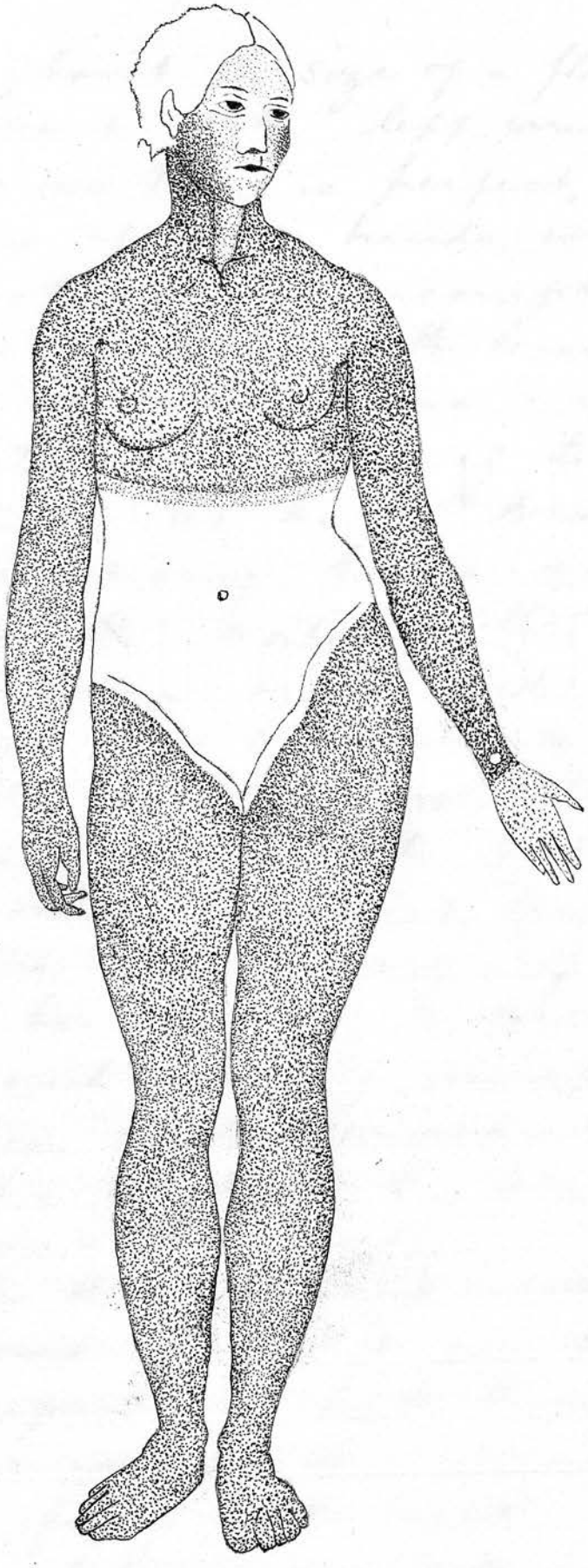
The accompanying figures indicate the general distribution of the anaesthesia. It will be noted that this distribution is not a nervous one.

The absolute anaesthesia is represented by the heavy shading, the incomplete anaesthesia by the light shading.

With the exception of a small sensitive patch on the front of the left wrist, the anaesthesia is bilaterally symmetrical.

In the lower extremities the upper margin of absolute anaesthesia is represented by a line, beginning posteriorly at the groove of the nates and sweeping upwards, parallel to, but slightly below, the iliac crest; then dipping downwards anteriorly, and running parallel to, but one inch below, the fold of the groin.

In the upper extremities, the anaesthesia is absolute everywhere, with the exception of a small



Case I_ shewing distribution of Anæsthesia – Front view

patch about the size of a florin on the front of the left wrist, where sensation is perfect, and the palms of both hands, where the anæsthesia is incomplete.

In the trunk, the lower limit of anæsthesia is indicated by a curved line beginning at the 10th dorsal vertebra, rising towards the angle of the scapula, then dipping down in the mid-axillary line to the seventh rib. Anteriorly it runs from the last point across the body, with a slight convexity downwards. The lower margin of this line is bounded by a narrow zone, 3/4 inch wide, of incomplete anæsthesia, and immediately below this we have the area of normal sensation.

In the head and neck, the anæsthesia is absolute over the areas represented by the trapezius & sterno-mastoids. It is incomplete over the front of the neck. It is absolute at the angles of the jaws, but incomplete over the cheeks,

shading off into normal sensation in the nose, lips and front part of the chin.

Sensation appears to be normal in the scalp and ears, but dulled in the forehead.

A curious result was obtained in testing her sense of temperature. It was found that thermo-anaesthesia existed all over the upper extremities, (with the exception of the palms of the hands), over the cheeks, nose & chin, and upper part of the neck & trunk corresponding to the area of absolute or incomplete analgesia. A hot object brought into contact with any of these parts produced a vivid redness, but no thermal sensation whatever. The same object brought in contact with the lower extremities, at once caused the patient to cry out with pain. The distinction between analgesia & thermo-anaesthesia could scarcely have been more marked.

The sensation of cold produced by an ether spray, gave

everywhere a negative result, except on the palm of the left hand, where it was felt indistinctly.

The application of metals during the passage of a faradic current, gave negative results.

The patient displayed no hesitation in picking up a pin when her eyes were closed, and she could walk perfectly well, provided she watched her steps. She experienced a sense of insecurity however when walking, and had the sensation of stepping upon some soft velvetty substance.

She had no power of distinguishing even marked differences in weight except in the left hand, where this power was present though very defective.

Ankle clonus was well marked at this stage of her illness, and the patellar reflexes greatly exaggerated.

Dr J. K. Hamilton (a specialist) who has examined the patients eyes reports as follows:-

"The eyeballs are structurally healthy. Vision - $\overline{C}$ 0.75 D = $\frac{6}{6}$ both (under Homatropine

and Cocaine)

Fields —

Left - concentrically restricted

Right — Normal

In making the usual perimetric examination there was found to exist the only thing that appears to be constant as regards the visual fields in these cases, viz that when the test object is moved centripetally it seems to the patient to be larger than when it is moved in the centrifugal direction. This is supposed to depend upon a rapid tiring of the retina, or of the patients attention to visual impressions.

Colour perception is normal.

Examination of the muscles revealed:-

Hyperphoria — Left 1°

Insufficiency of the internal recti = 6°

Adduction or Convergence = 3°

Abduction or Divergence = 8°

Sursumduction { Right = 2° / Left = 2°

The very marked deficiency of converging power is the most important departure from the natural condition as far as the muscular apparatus is concerned;

She can only overcome a 3° prism, whilst the normal eye should overcome a prism of at least 23° to 25°."

On the 5th Febry it was noticed that sensation was slowly re-turning to her arms. This process was completed in the upper part of the trunk and upper extremities by the 8th February. On that date the anaesthesia was still absolute in the lower extremities.

On the 9th February the patient suffered from severe pains in her legs & pelvis, & on pricking her lower extremities, we found, much to our surprise, that the anaesthesia had suddenly dis-appeared, and further that the patellar reflex was no longer exaggerated, but normal.

For the next few hours, both legs were very much swollen.

Remarks. It seems to me that in seeking an explanation for the anaesthesia in this and similar cases, we must discard the 'central'

theories, and so commonly advanced, and look for a peripheral cause.

For if we regard its origin as central, we ought certainly to expect the anaesthesia to follow the distribution of a definite set of nerves. No such law is observed in the above case.

On the other hand, I think the phenomena will be adequately explained, if we regard them as due to long continued mal=nutrition of the nerves themselves, owing to defective bloodsupply through their vasa nervorum.

This conclusion is supported by the following considerations:

1.° It has been proved physiologically that compression of the bloodsupply to a nerve, lessens its sensory excitability.

2.° A more or less perfect form of anaesthesia may be induced artificially by rendering a part of the ~~body~~ bloodless, as in the application of Esmarch's bandage

3.° In certain cases of defective circulation, as for example in a limb which has 'gone to sleep' or in fingers which have

become 'dead', the parts are fre=
=quently anæsthetic.

If therefore a constriction of the arterioles should occur in any particular area, (as it often does in certain physiological or pathological states,) we have all the conditions necessary for the establishment of anæsthesia in that area.

In the case of my own patient the return of sensation to the lower extremities, was ac=
=companied by severe pains and swelling of the limbs, due no doubt to the sudden & increased flow of blood, through the long constricted blood=
=vessels, — a fact which suggests that loss of sensibility in these parts may have resulted from the anæmic condition of their nerves.

Not only does such a theory supply a cause for the anæsthesia, but it also supplies a reasonable explanation for its distribution.

True as the physical law of action and reaction is its physiological Equivalent (with its Converse) that Contraction of the arterioles

in any large area, means a corres=
=ponding dilatation in another part
of the body.

The best example of this is
to be seen in cases of shock, or
faint, where the deadly pallor of
the skin, does not indicate an actual
diminution in the total quantity
of blood in the body. We know that
in such cases, the tendency is for
the blood to gravitate to the great
veins in the abdominal cavity.

Now in the case of this girl,
the zone of normal sensation
corresponds with a fair amount
of exactitude to the abdominal
cavity. Surely this must be due
to the superior bloodsupply in that
particular region.

The result of the application
of thermal stimuli in this case, is
also of great physiological interest.

It is conceivable that the ap=
=plication of a hot object to the
leg, might cause dilatation of the
arterioles at that point; and thus
increase the excitability of the sensory
nerves sufficiently to permit of the
conduction of a thermal impulse.

But if this were true, the explanation should also apply to the upper part of the trunk and arms.

Everything seems to point to a special set of nerves fibres for the conduction of thermic impulses, a suggestion which has been more than once thrown out by eminent physiologists (Landois & Stirling)

The central problem, (viz the lethargy,) in this most interesting case, is by no means easy of solution. This phenomenon is generally supposed to be due to an anæmic condition of the grey matter of the cerebral cortex. A post-mortem in one remarkable case of lethargy in 1869 (T. 2/69 pg 631.) seems to support this view, for there was found an excessive decolorisation of the grey matter of the cortex & the vessels scarcely apparent even in the grey substance of the striated bodies. It has also been several times noticed, in similar conditions, that an examination of the fundus of the eye, during the attack, showed the optic disc and retina to be abnormally pale.

This hypothesis fits in fairly well

with most of the facts observed in my case.

We know that the activity of nerve cells, in common with other tissues is diminished by a defective vascular supply, and increased by hyperæmia. If my Explanation for the peculiar distribution of the anæsthesia in this case be correct, (viz the storing up of the blood in the great abdominal vessels,) we have all the conditions necessary for depletion of the cerebral vessels, + consequent defective function in the perceptive Centres.

The chief difficulty in accepting this anæmic theory of the grey matters occurs when we try to make it fit in with the subsequent phenomena, viz the sudden restoration to Consciousness, while the abnormal vascular conditions in the rest of the body, apparently remained unchanged.

It is a significant fact that the tendon reflex, whose centre is situated in the upper lumbar vertebræ, within the zone of dilated arterioles, was exaggerated, (much in the same way as in early myelitis,) and

still more significant that it became normal on the disappearance of the anaesthesia & re-establishment of the circulation.

As we should expect, the organic reflexes, whose centres are situated in the same zone, retained their functions throughout the patient's illness.

Case II. Hystero-epilepsy

Mrs H. aged 21, was a young lady of some culture and good family history, who had contracted a second marriage three months before she became my patient.

She was a bright, intelligent girl & had always exhibited a well-balanced mind until her present illness.

She was anæmic & suffered from the usual diminution in the menses, but had no uterine or ovarian disease.

She had married comfortably, had no domestic worries, and her surroundings were in every way appropriate & happy.

On the Evening of 24th Aug 1889, she went to bed in her usual health & spirits, but shortly afterwards her husband heard her sighing heavily & thinking that she had nightmare endeavoured to awaken her. Failing to do this he lit the candle & found her unconscious.

She remained in this condition

for about an hour, at the end of which time she suddenly awoke, got up and micturated, then re=
=turned to bed and at once re=
=sumed her state of mental stupor.

She was still in this condition when I saw her at two o'clock in the morning.

She was lying fully extended on her back, her legs rigid, with the left foot firmly pressed down on the dorsum of the right.

Respiration sighing; temperature slightly raised (100°): pupils normal.

It was impossible to arouse her by pricking, pinching or in any other way. Her whole body appeared to be anaesthetic.

At 3 o'c she had a convulsive seizure. Her face be=
=came cyanotic, breathing ceased a few seconds, then followed a few hurried respirations & then again cessation. She tossed her head rest=
=lessly from side to side, and then raised it slightly from the pillow.

Her whole body was ab=
=solutely rigid, arms extended at the side as though in the act of

stretching, and the hands firmly clenched. The feet were firmly crossed as above described, and even when using great force, it was impossible to separate them. The soles of the feet were incurved. There was no opisthotonos.

This condition of muscular rigidity lasted an hour, then gave place to her former state of stupor. This was again succeeded by two or three seizures of shorter duration with their intervening periods of stupor until 6.30 a.m when the patient became suddenly conscious. She seemed perfectly well and had no recollection whatever of the events of the night.

She remained well for almost 24 hrs, when the attacks which I have above described, began to recur, & during the next few days they became very frequent, each lasting several hours, sometimes coming on spontaneously, or being induced by any attempt to move her or by an effort at swalling certain liquids, such as cold water, brandy or wine, or even very strong beef-tea.

The attacks were always preceded by crossing of the left foot over the right, by yawning & stretching. After they were over the patient seemed bright & happy and had a very good appetite

This condition constituted the first stage of her illness & lasted about a week.

The Second Stage came on at the end of that period and was signalised by a change in the character of the fits.

They began to assume a more truly epileptiform nature.

The patient became violent, struggled, tore at her chest, and occasionally bruised herself severely against the bed-stead.

There was no biting of the tongue. Cold douches and other applications used in hysteria seemed to increase, rather than subdue the fits. Their average duration was about 10 minutes, and they were always succeeded by a drowsy condition, from which the patient could only be roused with difficulty, and which lasted about half an hour.

These attacks were of frequent oc-
-currence for several days, then
suddenly ceased. At the end of a
week they returned with renewed
vigour.

Scanty menstruation now
came on at the regular period
but had no apparent effect on
her illness.

The <u>Third Stage</u> began on 20th Sept.
It differed from the former stages in
the facts that the patient was conscious
during her attacks, and suffered from
severely painful spasms of various
muscles.

During a fit, she was always
rigid and frequently threw herself
into a state of pleurosthotonos or
opisthotonos. Her feet were crossed
as usual, and any attempt
to separate them, not only caused
great pain, but had the singular
effect of bringing her instantly
into a rigid sitting posture.

She looked very curious in
this position, and for all the world like
a mechanical figure worked by springs;
her arms rigidly extended from the

shoulders, eyes open, fixed and apparent=ly sightless.

As soon as the feet were re=leased, they would fly back to their old position, as though attached by elastic bands, and the patient would at once again fall into the horizontal posture. These manoeuvres might be repeated as often and rapidly as desired.

During this stage the muscles of the face & jaws were frequently in a state of spasm, causing the patient much pain and often depriving her of the power of speech.

She would always reply rationally to questions when the power of articulation was not prevented by this difficulty.

These attacks were succeeded by a short sleep, after which the patient would be all right again, and they were preceded by a feeling of heat, a creeping sensation up the spine, and a general feeling expressed by the patient as that of "curling up" She stated that every muscle & organ in her body appeared to 'curl up', & that she had no power to prevent it.

During these attacks, & those which followed in the next Stage (Fourth), the body was divided at the level of the umbilicus into two divisions, an upper & a lower, in which the difference of temperature was quite perceptible to the hand. When the part above the umbilicus was hot, that below it was cold, and vice versâ.

The Fourth Stage began on the 30th Sept, and was exceedingly curious & complicated.

It was characterised by the addition to the last stage (third) of hallucinations & delusions, and also by the interposition of an intermediate phase between the actual fit & the stupor which succeeded it. It therefore consisted of three phases.

These attacks though varying in details were essentially the same in sequence of events.

Let me describe one of them.

Phase A. The fit was ushered in by most of the premonitory symptoms of Stage III, viz the feeling of heat & creeping sensation up the spine. Unlike that stage, however,

the spasms were chiefly confined to the lower extremities & some of the involuntary muscles.

As before, any attempt to separate the feet, brought the patient at once into the sitting posture.

The eyes were wide open & fixed on the ceiling, the pupils dilated and eye-balls prominent.

Speech was unaffected & the patient somewhat loquacious.

She seemed childishly happy, & derived great pleasure from some "pretty things", which she saw on the ceiling. Asked to describe them, she readily did so, describing a series of circles, beginning with red and naming the colours accurately in order of the spectrum. On interposing my hand quietly in the line of her vision, she expressed keen disappointment, that although the circles had come nearer, they were smaller, not so well marked, & much more insignificant than before.

By no effort could we induce her to change her line of vision & whenever we attempted to move her, she displayed great-

irritability, + still (often with great discomfort to herself) kept her eye fixed on the 'fascinating point'. Not for a moment would she lose it, + it was curious to see how incapable we were, even by separating her feet + so bringing her into a sudden sitting posture, of diverting her attention for a single instant.

If a person placed a hand actually in contact with her eyes, she became passionate, declaring that he was shutting out the sight of the rings.

She had evidently lost the sense of vision, for she could see nothing placed before her, only noticing the alteration in the distance of the rings.

Nor only was the ciliary muscle in a state of spasm, but probably also the tensor tympani, for we found it necessary to speak loudly in order to arrest the patient's attention; and her hearing was also modified in another way. She was unable to distinguish my voice from that of her husband, or her mother's voice from that of her sister-in-law, but instantly re-

=cognised the difference between a male and a female voice; that is to say, she seemed susceptible to alterations in pitch, but not in quality, of a ~~voice~~ sound.

She heard questions addressed to her, but in her pre=occupied condition did not readily catch their gist. When she did, after asking you to repeat them, she always gave an intelligible reply.

She had lost her sense of taste & could not distinguish between sugar & salt, mistaking them both for sand.

Phase B. Suddenly the Intermediate phase of Stage IV set in. Her pupils contracted somewhat, and her eyes were no longer fixed. She was able to see and recognise sur=rounding objects and persons. Her conversation now became witty & amusing, her replies shrewd, pointed and intelligent. No stranger coming into the room at this moment would suspect that she was not in her normal mental condition.

It was during this phase, however, that she suffered from hallucinations or delusions.

For example, she fancied her head was of enormous size and asked me to feel the top of it, indicating a point 18 inches above it. Still on this point she was open to conviction, for when I had placed an ordinary hat over it, she acknowledged that she must be in error.

She complained also that her hands were enormously enlarged, but on asking me to look at them, she was again convinced.

Phase C The intermediate phase of Stage IV suddenly terminated by the patient falling asleep.

She slept for half-an hour, then awoke, perfectly rational, but singularly enough, without any recollection whatever of any=thing that had occurred during any part of this fourth stage.

These three phases were always gone through with great regularity, although the first

phase (A) varied as regards its phenomena. For instance, instead of seeing spectral rings, the patient sometimes fell into a state of great fear from some terrible hallucination, such as a fire, a murder, or an accident.

Sequelae. The fourth stage was of brief duration. It lasted less than a week. At the end of that time signs of improvement be=came manifest. She lost her hallucinations and delusions, and for about 10 months after=wards remained subject to the milder attacks which characterised the first stage of her illness, al=though in a less severe form, and not so prolonged.

Early in October she became pregnant for the first time, and as nearly as I can judge the im=provement in her condition must have been coincident with her conception.

I attended her through a perfectly normal confinement the following July, and since that

period the patient has been absolutely free from her attacks.

There is only one point which deserves reference during her pregnancy. Even as early as the third month and until delivery, her breasts assumed enormous proportions, so much so that they became a burden to her. She was unable to wear ordinary corsets and found mammary suspensors an absolute necessity.

During the whole of her illness she was violently constipated.

Her urine was always free from albumen, but during the early stage of her illness contained a well-marked quantity of uric acid.

Remarks. This aberrant form of hystero-epilepsy is of extreme interest as illustrating what may be termed the 'evolution' of Professor Charcot's type of the Salpêtrière.*

Stages I and II may, I think, be fairly regarded as representing

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*Vide Tuke's Psychological Med. vol 1. page 630.

his 'epileptoid period'. (The resemblance is perhaps more closely marked in the second of these stages.) In Stage I, we have to begin with a very prolonged tonic phase, alternating with a relatively short clonic phase. The period of muscular relaxation and stertor are, in this instance, absorbed by the tonic phase.

In Stage III the attack is preceded by a distinct aura, and starts with a brief epileptoid period (of tonic spasm only,) during which however, the patient is conscious. This in turn is followed by Charcot's second period, in which we get the phenomena which he describes as "l'arc de cercle," (embraced by our terms opisthotonos + pleuros- = thotonos.) The peculiar attitude into which she is thrown by the separation of her feet, may be placed under ~~his~~ the heading of "posturing". His third period of psychical phenomena is here absent, but replaced by a stage of stupor.

In Stage IV the evolution of Charcot's type is completed. The aura + epileptoid period are represented, but his second period is practically absent. His third and most interesting period of "attitudes passionelles" was shown for the first time during the course of the patient's illness.

In looking over the history of this patient's illness, it is impossible to escape the conviction that it was due to some functional disturbance of the reproductive system, acting on a constitution rendered already susceptible by the debilitating influence of anaemia. The facts, that it began soon after marriage, that it continued throughout her pregnancy, + terminated suddenly with her delivery point I think almost conclusively to this view.

Both this case as well as the former serve also to

illustrate some of the difficulties which may arise when we attempt to draw a sharp line of demarcation between hysteria & insanity.

Hysteria, epilepsy & insanity form a trinity of complex and protean relationship, in which the rôle of first person is often assumed indiscriminately by one or the others, according to circumstances, but where insanity is more often the progeny, than the progenitor of the other two.

A. S. Rogers.