* HAEMOCYTES & HAEMOGLOBIN BONE MARROW TWO OUNCES A DAY.

as to surroundings, diet, and nursing since 1891, we may fairly ascribe the great improvement which took place under treatment in her general health and condition, an improvement hardly sufficiently indicated by the rise in the number of haemocytes, to the administration of bone marrow. Small doses of liquor arsenicalis were ordered comparatively early in the treatment of the case, but after a single dose the patient complained of severe gastralgia, and positively refused to take any more of the medicine or any food in which she suspected it might have been placed. Arsenic was afterwards administered in the form of pills resembling in appearance the Bland's pills she was taking, and no inconvenience was complained of.

In conclusion I have to thank Dr. Cameron for permission to publish these notes.

A CASE OF DIABETES INSIPIDUS TREATED BY INGESTION OF SUPRARENAL GLANDS.

By WALTER F. CLARK, L.R.C.P.&S.Ed., D.P.H.,
M.O.H. Cheshunt.

A GREAT many cases have been reported in the BRITISH MEDICAL JOURNAL, in which the thyroid gland, or its extracts, have been used in the treatment of various diseases. The following case, in which the suprarenal capsules were used, may therefore be of interest.

Mrs. A., aged 39, the mother of four children, was found on May 13th, 1893, to be suffering from diabetes insipidus. She then for some months attended the London Hospital as out-patient, but considered that she steadily grew worse.

On May 6th, 1894, I attended her in a confinement. Her condition of extreme debility made me a little anxious, but she made a good recovery so far as the confinement was concerned. She was in hopes that "the child would take the disease," but found that her condition was unchanged.

On May 24th she passed the usual quantity of water—two gallons during the night only. The urine was characteristic, pale, slightly alkaline, specific gravity 1005, containing neither sugar nor albumen. She complained of great thirst, weakness, and continued loss of flesh, and she had little sleep, but spent the night in getting into and out of bed. She was only able to move about the house.

I then gave her half of one suprarenal of a sheep every third night, chopped fine and taken in a small sandwich. About two hours after taking it she felt very hot and giddy, so giddy that she could not stand. A moderate perspiration followed, and she slept. The thirst was much diminished,

she passed less urine, felt stronger, and had much more sleep.

On May 30th she, by mistake, took one whole capsule. The giddiness was much increased, she felt very faint, and thought she would die, and suffered from restlessness all night.

On June 5th her weight was 8 st. 13 lbs. The urine passed was 5 quarts in twenty-four hours, slightly alkaline; specific gravity 1008.

On June 8th the urine during the night only was 1 quart, though on most nights it was 2 quarts. I then ordered one-half capsule every second night. Finding some difficulty in procuring fresh glands, I wrote to Messrs. Burroughs, Wellcome, and Co., who sent me some tabloids of dried glands, and on June 10th I gave one tabloid every other night, but as the patient complained much of the giddiness, I reduced the dose to half a tabloid.

On June 19th the amount of urine during the night was 1 quart, but on the night on which the half tabloid was taken, it was always more—about 2 quarts. The patient, complaining of indigestion, I gave her a mixture containing rhubarb and soda before food, and a glass of port wine with her dinner. She said she felt much stronger, but did not apparently gain flesh.

On July 31st she felt much better; a sick child gave her a bad night. The urine measured 4 quarts in twenty-four hours; specific gravity 1006; alkaline. The dose was increased to one tabloid every other night.

On September 3rd she still felt better. The urine measured 3 quarts in twenty-four hours; it was slightly acid, of specific gravity 1009, and contained urea 180 grains. She did not take any tabloids for a week, and the urine doubled in quantity.

On October 6th she passed 3 pints in twenty-four hours; it was neutral; the specific gravity 1010, and the amount of urea 210 grains; and on November 3rd, having been three days without taking the drug, she passed 7 pints of urine in twenty-four hours; specific gravity 1009, and the urea 210 grains.

On January 20th, 1895, having been three weeks without taking the glands, the urine was about 6 quarts in twenty-four hours, with great thirst and weakness. Two fresh glands were then taken at intervals of three days, and the amount of urine was reduced to 3 quarts and half a pint in twenty-four hours.

On February 27th she was taking one fresh gland every third night, and the urine passed amounted to 3 pints in twenty-four hours.

On March 15th her condition was the same.

On April 2nd she had stopped taking the glands, and the urine was increasing in quantity.

I have had great difficulty in inducing the patient to continue the treatment with regularity, and to give me opportunity for accurate observations. I feel that this case has been very insufficiently watched and reported, but I have done the best I could under the circumstances.

I was led to try the effect of the adrenals by remembering the large nerve supply accompanying their blood vessels, which might or might not influence the nerves governing the blood supply of the kidneys, both being derived from the semilunar ganglia. Whether the effect is thus produced, or whether it is the result of the tonic effect alleged to be induced by the ingestion of the adrenal substance on the blood vessels of the system generally, I cannot say, but in the case before me I find that:

1. The urine has been reduced in amount from 4 gallons to 3 pints in the twenty-four hours.

2. The general health and strength have been much improved. The patient, who before could hardly move about the house, can now walk several miles, can do all the work of the house, and attend to her children.

3. So long as she takes the glands the urine is moderate in quantity, but when she ceases taking them the urine increases in amount, and great thirst and weakness result.

What also strikes me is the fact that though the amount of urine passed has so much diminished, the quantity of urea excreted should remain so small. Though so much stronger her weight has not increased. I may also mention that the glands from frozen mutton appeared to have much less effect than those from mutton recently killed.

A CASE OF DISSEMINATED SARCOMA, WITH HÆMORRHAGES INTO THE SKIN AND ELSEWHERE.¹

By T. C. RAILTON, M.D.LOND., M.R.C.P.,
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HISTORY.

J. W., a boy 12 months old, was brought to the Manchester Clinical Hospital in March, 1894, on account of certain soft projections which had appeared upon his head in the course of the previous two months, accompanied by increasing weakness and wasting. He only lived ten days after admission.

He was born naturally and of healthy parents. He was the second child, the other being alive and well. It was not thought that he had received any injury. The projections on the forehead were the first symptom of anything being wrong, and they had made their appearance gradually and painlessly, one or two first showing themselves and continuing to grow steadily, while others followed in the neighbourhood. One of these, prominently situated upon the left side of the forehead, had attained the size of a hen's egg, being surrounded by smaller ones. Another had appeared upon the right side a little more than a fortnight before he was brought to the hospital and this ultimately became the largest. While these swellings were appearing the child deteriorated perceptibly; he became pale, lost flesh and at the time of his admission he weighed 22½ lbs., having weighed 23 lbs. when five months old.

When he was admitted, he presented an appearance of the most profound anæmia, his complexion was waxen, his lips and conjunctivæ bloodless. There were traces of hæmorrhage in the skin of the forehead in various stages of absorption, a bluish ecchymosis in the right upper eyelid towards the inner canthus, and two smaller ones upon the inner and outer sides of the left upper lid. He did not appear to be in pain, but lay quietly in bed with his eyes apathetically looking into vacancy. The numerous bosses upon the anterior part of the head and forehead were soft and fluctuating, the skin over and around them was tinged with blue from blood extravasation. Over the right frontal eminence there was a rounded fluctuating projection nearly 2 inches in diameter, which yielded chocolate-coloured semi-fluid blood when explored with a

needle. Three smaller swellings of similar character were placed behind it. On the left side there were several swellings of moderate size over the frontal and parietal bones. None of the projections were tender to pressure. Blue veins stood out in the middle and at the sides of the forehead. The patient had beads on his ribs and the radii slightly enlarged at the wrists. He had six teeth. The gums were pale but otherwise normal. The bridge of the nose was somewhat depressed. The liver appeared considerably enlarged, and felt decidedly harder than usual. The spleen could be felt a little below the costal border.

There was no evidence of effusion of blood about the limbs nor of deep-seated swelling around the shafts of any of the long bones. He moved freely and showed no tenderness. The urine contained no blood during the time he was under observation. There were no purpuric spots on either body or limbs, nor was there hæmorrhage from any mucous membrane.

Three days after admission a fresh effusion of blood was observed upon the right temple. On the fifth day proptosis of both eyes occurred, the right eye being the more prominent. On the seventh day a fresh swelling made its appearance on the left side of the frontal bone near the suture. The following day the temperature, which had previously been hovering between 100° and 101°, suddenly rose to 104.2°, but without any fresh physical signs. The chest showed no evidence of disease; there was no alteration of the pulse-respiration ratio, and no diarrhoea. On the ninth day the right eye appeared considerably more prominent, and the ecchymosis in the upper lid much deeper in colour. The patient moved both hands, occasionally bringing the right one up to his ear and then putting it down by his side again. The temperature rose to 105.2° F. There was a slight trace of albumen in the urine. The following day he died, the temperature before death being 105.8° F. He had no sickness; the pupils were equal and not unduly dilated. No symptoms of paralysis were observed.

At the *post-mortem* examination made the following day the scalp was found to strip off readily from the pericranium. The tumours beneath the latter consisted of a soft, excessively vascular growth, and were seen under the microscope to be composed of small round cells, evidently of a sarcomatous nature. Between the dura mater and the bone in the anterior part of the skull there was a large, diffuse, lobulated swelling. The bone was roughened both externally and internally at the seat of the growths. The chief mass of the internal growth was at the left side of the frontal region, but

¹ Read before the Pathological Society of Manchester.