even if it be inadmissible from a theoretical point of view (cf. Bie⁴), is of a very little practical importance, whilst 13 also allowed other colours of the spectrum to pass, and were therefore useless. The examination was made in the beginning of February in bright sunshine. In future it will be necessary to examine the stock at shorter intervals. It would seem, therefore, that the Finsen treatment with red panes must be reserved for hospitals which are always able to have their supplies in order. Where the arrangements are on a smaller scale the use of stuff will be advantageous. Or still better, one might advance another step by carrying on treatment in the dark. This idea is far from being new. From 1867 and 1871 we have reports on cases of small-pox treated in the dark (Black,⁵ Waters,⁶ Barlow⁷). Finsen based his opinion of the special inflammatory qualities of the chemical rays in variola on the fact that the most numerous and the deepest scars are generally found on the face and hands—that is, on the parts most accessible to light—and treatment in the dark only differs from treatment in red light by the fact that all other rays are excluded as well as the chemical. No objection can be made against treatment in the dark based on the idea that there is any positive advantage in the use of red light, either in its influence on the eruption or on the general condition. This treatment in the dark, as well as its results, were not unknown to Finsen, and he quoted and found support for his views in the above-named English authors.

Finsen⁸ pointed out that some people seem to have an aversion to red light, and added: "I wish, moreover, to draw attention to the fact that now when the method (that is, the red light) has everywhere stood the test, it ought to be the doctor's first duty, as soon as he has diagnosed small-pox, to see that the windows of the sick room are covered, and that there is a light. Seeing that the treatment may be so easily arranged, it is really indefensible to expose the patients to daylight until they can be exposed to red light in the hospital. This indication, which specially concerns the early time, can be prolonged during the whole period, that is, until the vesicles dry up, etc., and it may be taken for granted that patients who have had a severe attack, and especially those whose eyes are affected, will not feel this treatment as particularly rigorous."

It may not be out of place to draw attention to certain conditions which must always be present if the treatment is not to disappoint expectations.

In the first place, the arrangements ought not to be limited to the sick room, but account should be taken also of the adjoining rooms, passages, etc., so that no great quantity of injurious daylight should be thrown on the patient in opening the door of the sick room. All sources of artificial light must be covered with red lamp-glasses, such as photographers use, and when doctors and nurses in their rounds think it necessary to use ordinary light, it ought only to come from a stearine candle, of which the flame contains so few chemical rays that no harm is done if used only for a short time. It therefore follows as a matter of course that even for a short time, and in order to see the exanthem better, daylight ought not to be admitted freely.

Finally, there is the question as to how the red light affects the patients—apart from their illness—and the staff generally. Nothing is known of its remote effects, but the reaction to it seems to be somewhat different. Some do not seem to be appreciably influenced, while others find it rather unpleasant in the long run, and some get an absolute aversion to it. It often produces a feeling of heaviness and headache, and it is always found exhausting and tiring for reading; on the other hand, we have not noticed any mental excitement or increased sensuality, as is said to have been the case elsewhere. Naturally the red light produces a strong sensitiveness in the retina to ordinary daylight. This hypersensitiveness is very troublesome and confusing to the nurses, who of course are obliged to go backwards and forwards between the red-room and the daylight. To mitigate these drawbacks—and in a red-room the light on bright days is very intense—coloured spectacles may be used with advantage. Green and blue glass each in their own way considerably modify the light and produce different shades, of which some will prefer one, others another; and with smoked glasses a chiaroscuro is obtained, which

gives great relief. Contrary to what might be expected, neither the blue, the green, nor the smoked glass, provided they are not very dark, cause any considerable weakening of the light in a red-room.

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RECOVERY FROM APPARENT ARTERIAL SCLEROSIS.

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I SAW the patient first on August 6th, 1909.

Previous History.

The patient, aged 60, was manager of a large commercial concern, and in this position had led a strenuous life for twenty-seven years, having been at sea before that for eleven years. He had always been strong and healthy up to twelve months before his present illness, except for slight attacks of bronchitis in the winter, which did not lay him up for more than a few days. He had met with an accident to his legs in 1905, which had laid him up for a fortnight. There was no history or sign of syphilis, and he had always been moderate in the use of alcohol and tobacco. His family history was good.

History of Present Illness.

The first sign he had that there was anything wrong was a sudden feeling of breathlessness and palpitation while running for a train in the autumn of 1908; after that he took care not to overexert himself physically. In the spring of 1909 he had a severe attack of bronchitis, which he was unable to shake off completely, and after it he found he could not exert himself at all without palpitation and breathlessness. He consulted a specialist, who diagnosed cardio-sclerosis and ordered him a sea voyage. He went to Las Palmas, where he unfortunately had a severe attack of dysentery, and returned home in a very weak state.

Condition on Examination.

He was a tall, spare man, and complained of feelings of exhaustion and pain over the heart and palpitation and dyspnoea on exertion, of tenderness of the eyeballs, and of a feeling of weight or pressure across the top of his head. He was in the habit of wearing one pair of pince-nez for reading large print or for writing, supplementing them by a second pair for reading small print. He suffered much from flatulence, and had feelings which he described as waves of pins and needles passing down his back and limbs which could be induced by a deep inspiration or by yawning. He also described "bubbling" sensations in various parts of his body which were caused by localized series of contractions of bundles of fibres of a muscle. The lower sternum was depressed (funnel breast). The apex beat, in the sixth interspace and nipple line, was somewhat heaving. There was also marked epigastric pulsation. The first sound was softened, the second a little accentuated. His radial pulse was soft and the artery wall not more thickened than was to be expected in a man of his years. There was marked acceleration of the pulse-rate on deep inspiration and slowing on deep expiration. Capillary pulsation was observable. The breath sounds were normal. There was a line of dilated venules along the margin of his ribs. The urine was normal in quantity, rather high coloured, contained a large amount of urates, and a trace of albumen, but no sugar.

As his general symptoms, especially the feeling of weight across the top of his head and soreness of the eyeballs, were typical of a case of neurasthenia due to errors of refraction, I sent him to Mr. Claud Worth, from whom I received the following report:

"The patient has 4 D. of presbyopia in the right eye, 4.5 in the left. Retinal arteries are very small and tortuous. Central light streak very wide. Where an artery crosses a vein the latter is so compressed as to be apparently interrupted. No retinal oedema. No haemorrhages."

Treatment.

The errors of refraction were suitably corrected, and on Trunczek's hypothesis that arterio-sclerosis is due in some cases to nutritional disturbances in the artery wall, partly owing to exhaustion of the vasomotor nervous system and partly to lowering of the food-carrying and eliminative powers of the blood from a diminution of its salt content caused by auto-intoxication, he was given the salts of Trunczek's serum, slightly modified. They were dispensed in the form of tablets, each containing sod. chlor. 0.4 gram, sod. sulph. 0.04 gram, sod. carb. 0.016 gram, sod. phos. 0.012 gram, mag. phos. 0.016 gram, calcium glycerophos. 0.012 gram. He took two tablets three

times a day, and also took miol, a combination of olive oil, iodine, and glycerophosphates. The iodine in this would relieve arterial spasm, and the olive oil, besides being a good fattening food, would tend to dissolve out any cholesterolin, which has been said to be deposited in the arterial walls in arteriosclerosis. The glycerophosphates would act as a nerve food. He had a strong brine bath every morning and an occasional dose of sodium sulphate before breakfast.

He gained rapidly in weight and strength under this régime and gradually became able to extend his daily walks without undue fatigue or cardiac distress. At the end of ten weeks he was able to go for a long walk and to climb a stiff hill. The miol had then to be stopped for a time owing to the iodine in it causing swelling of the eyelids and congestion of the conjunctivæ. He returned to work at the end of three months.

Early in January, 1910, he again saw Mr. Worth, who reported as follows: "Retinal arteries are larger and have lost the 'silver wire' appearance. The appearance of interruption of the veins is much less marked." In fact, he told me that the arteries appeared about normal for a man of the patient's years.

The patient continued the treatment on and off for some months and now takes sour milk, which he finds has greatly diminished his flatulence. He is now (June) in good health and able to do his work without undue fatigue. The trace of albumen entirely disappeared.

One could hardly have expected such an excellent result; the arrest of the sclerosis was all that could have been reasonably hoped for.

The question is, what stage of hardening had the retinal arteries reached? The stages of hardening of the wall of an artery are roughly as follows: First, hypertrophy of the media; secondly, small round-celled infiltration, especially between the endothelium and internal elastic lamina; and thirdly, degeneration of the newly-formed elements and their replacement by fibrous tissues with deposits of lime salts, etc.

It is conceivable that the vessels might recover from the first two stages—that is, that the small round-celled infiltration might disappear and the amount of muscle in the media might be reduced, but it is inconceivable that the vessels could recover if the change had gone beyond this. It is therefore probable that the retinal arteries of the patient were in this second stage. Whether the arteries of the other organs—for example, those of the heart and kidneys—were in the same state it is, of course, impossible to say.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

ANEURYSM OF THE BASILAR ARTERY.

THE case which the accompanying photograph illustrates is, I think, of sufficient rarity and interest to merit a brief note.

The specimen was taken from a British soldier, aged 27, who was brought into hospital dead on April 5th. At the inquest it was stated that on the morning of that day he

complained of headache, and obtained permission to leave his work and return to barracks. Nothing abnormal in his gait or demeanour had been noticed by his comrades. It would appear that he left barracks to return to duty about an hour later; but he never reached his post, and was found dead by a native, who at once reported the occurrence.

The following is a brief extract of my *post-mortem* notes:

The body is that of a well-nourished and muscular male, and shows no evidence of any violence. The lower third of the front aspect of the left thigh is the seat of a number of shallow, circular, punched-out confluent ulcers, varying in size from a sixpence to a five-shilling piece. There is both cicatrization and pigmentation, but healing is sound. Two other similar ulcers are present on the front of the right forearm and several on the back.

Thorax.—Heart, coronary arteries, and aorta are normal.

Abdomen.—Nothing abnormal.

Cranial Cavity.—The right cortex is the seat of an extensive recent subpial hæmorrhage, which is also present to a lesser degree over the left, where it has not quite reached the vertex. The pia mater has not been ruptured.

The interpeduncular space is bathed with recently-exuded blood, and on removing this the basilar artery, just behind the point where it bifurcates into the posterior cerebral arteries, is seen to have expanded into an aneurysmal sac the size of a hazel nut. The sac is empty, and a small probe can be passed into the puncture at its anterior extremity. The left half of the pons which it underlies shows slight flattening.

The other cerebral arteries are normal. Both ventricles are full of blood.

The medical history sheet states that the man contracted syphilis in Ireland in 1902, and was treated in hospital there. As recently as January and February of the current year he was treated here for tertiary cutaneous manifestations, but refused to go on the register for a complete course of treatment, as he was time-expired and about to return to England.

Rawal Pindi, Punjab.

H. C. SEMON, M.R.C.P., I.M.S.

Reports

ON

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF THE BRITISH EMPIRE.

ST. GEORGE'S HOSPITAL.

RHEUMATIC NODULES ON THE EXTERNAL EARS.

(By H. D. ROLLESTON, M.D., F.R.C.P., Senior Physician to the Hospital.)

A MAN, aged 21, who had had rheumatism, pleurisy, and pneumonia nine years before, was admitted on March 10th, 1910, with pains in the joints of three weeks' standing and signs of mitral regurgitation.

After a few days he showed signs of pericarditis with effusion, followed by double pleurisy with effusion; these signs persisted. On May 26th he had pericardial pain, and on May 30th well-defined rheumatic nodules were noticed on the outer and posterior surface of the helix of the left ear, near the position of Darwin's tubercle. They were painless and not tender, but the patient said he had noticed them as rather irritating pimples six weeks before. A nodule was also noticed on the helix of the right ear. On June 3rd two additional nodules were noted on the right ear and three nodules over the occipital bone, and a number of nodules over the extensor tendons on the back of the hands. On June 4th two additional nodules were noted on the helix of the left ear and also a nodule on the external condyle of the right humerus. During this time the patient was perspiring freely, but there was no rise of temperature.

On June 10th the nodules were diminishing in size.

Remarks.—The occurrence of rheumatic nodules on the ear is evidently rare, as it is not mentioned in the articles on rheumatic fever in two contemporary systems of medicine. Dr. John Thomson, however, figures rheumatic nodules on the auricle. In their tabular statement of 27 cases of rheumatic nodules Sir Thomas Barlow and Dr. Warner describe one case, in a boy aged 15, with three rheumatic nodules, each the size of a hemp seed, on the posterior surface of the pinna of the right ear; there were