

by the thought of cost, and indeterminate as to time. No one with daily knowledge of these things can say that his withers are unwrung.

Let research go on by all means—let this centre say “we will take such and such a type of case, and of that type we will take only this man and that woman”; but the authoritative bodies concerned with the public health and the public welfare might well bestir themselves against the day of a public demand for such facilities as are here indicated. There may perhaps be some unoccupied beds among those provided for tuberculosis, as at Northwood, and some sanatoria might be turned over to cancer. At any rate, the provision should be on a scale which no properly balanced university—that is, “teaching”—hospital can properly afford, either as to accommodation or cost.—I am, etc.,

London, W.1.

E. ROCK CARLING.

### Acclimatization to Hot Environments

SIR,—In dealing with the effects of climate upon the human organism, the cooler climates are usually accepted as being the normal for man. Is this not inaccurate? Was man not adapted in the first place to a warm environment? If this had not been so, his descendants in cooler regions would not acclimatize now to tropical climates. His struggle to advance has been aided by his battle with the colder climates in which he has gained in physical and mental energy. Natural man at the present day is to be found mainly in tropical regions. The more civilized races in cooler climates still keep their skin temperatures at a tropical level by wearing clothes and by other artificial aids—for example, hot-water pipes. When considering problems of acclimatization is it not more reasonable, from a scientific point of view, to accept the warmer climates as the standard and to investigate how adaptation to colder climates has taken place? With his sweat glands and his freely exposed skin, man is already well adapted for a warm environment if during the heat of the day he reduces his body heat production to a minimum by slacking off in pace or by resting.

A great deal of attention has been directed to the basal metabolism in different climates and races, and there is some balance of evidence in favour of a slight decrease (five to ten per cent.) both in natives and in white races resident in the Tropics when compared with metabolism in cooler climates. Such a slight and by no means constant difference cannot be a main factor in adaptation to warmer regions; the main point is that in these regions the total metabolism, including heat production from food and muscular work, is greatly reduced during the hotter hours of the day; activity is indulged in mainly during the cooler periods. Tolerance of a hot climate thus concerns a return towards the routine and scanty clothing of natural man rather than any mysterious physiological mechanism observable only in the Tropics.

It is the sudden exposure to extremes of heat and of cold before habit has been changed which strains the various well-known mechanisms of the body. For example, in a cool climate the sweat glands are working more or less at a minimum, and a sudden change to extreme heat cannot be met at once by the necessary superactivity of these glands unless they have been kept active by frequent Turkish baths or otherwise. It is such change-over of the ordinary mechanisms which underlies adaptation to various climates. The recent high temperature in London, owing to its suddenness, caused discomfort even to some who had spent years in a tropical zone. If desired, houses could be kept cooler by circulating cold water through pipes embedded in the walls. It is not a question of want of knowledge in ventilation, but of finance.

Most of the above points have been recorded by authorities in older standard works, but their importance has been swamped in more recent times by the greater attention paid to newer phenomena, certainly of great scientific interest, but of minor importance in acclimatization. I hope this is sufficient apology for any reiteration.—I am, etc.,

London, N.W.3, July 11th.

J. ARGYLL CAMPBELL.

### Injection of Varicose Veins

SIR,—May I be allowed to congratulate the three authors who, in the *Journal* of July 13th, published a most painstaking report upon the late results of injection treatment in varicose veins.

Personally, I have always preferred quinine urethane to sodium salicylate as a sclerosing agent, but my observations and results in relation to several thousands of injections classified since 1925 conform fairly closely with those of your contributors. Strangely enough I have noticed very few true instances of recanalization in my own clinic, and have been led to believe that this annoying type of recurrence was largely eliminated by the intensity of the intimal reaction to quinine.

During 1927 I undertook ambulatory ligation of the internal saphenous vein in several cases, one of which was complicated by the development of a pulmonary embolism, fortunately without a fatal issue. On the whole I feel that the risk which attaches to this procedure outbalances its small benefit.

For years I have found that large varices which refuse to react to a succession of intravenous injections will promptly sclerose in response to small paravenous injections. The needle is introduced into the vein and a little blood is aspirated. The point is then inserted more deeply until it is estimated to be at least one millimetre deep to the inner wall, when three minims of quinine urethane are injected. I have never had a case of quinine necrosis following this technique, and I have found the results uniformly satisfactory.

I am particularly delighted to find that the authors are whole-heartedly in favour of an Unna's paste dressing in cases of ulceration. I can completely confirm their observation that elastic adhesive bandages do not maintain adequate pressure, and that they tend to injure or irritate the skin. In my own experience they frequently produce a most painful and extensive type of dermatitis.

In the *British Medical Journal* of October 4th, 1930, I published in conjunction with Miss K. M. Cellan-Jones a formula for a non-elastic paste-bandage, which possesses all the advantages of the Unna stocking but is much more easily applied, and yields, in my opinion, more satisfactory results than any other application. I would be grateful to hear from the authors of the paper whether they have tested this bandage and, if not, whether they would be willing to compare its efficacy with that of Unna's paste dressings.—I am, etc.,

Swansea, July 13th.

C. J. CELLAN-JONES,  
M.D., F.R.C.S.Ed.

### Recovery after Cardiac Arrest

SIR,—Mr. R. A. Grant is to be congratulated upon the happy outcome of the case of cardiac arrest during operation described in your last issue. I notice that two injections of 5 c.cm. 1 in 1,000 adrenaline were given into the wall or cavity of the left ventricle. May I point out for the guidance of those in this unpleasant predicament that it has been conclusively proved (by A. S. Hyman) that the auricles are more sensitive to stimulation than the ventricles. Simple auricular puncture usually results in cardiac motion: extrasystoles followed by normal

rhythm. If the preceding period of anoxaemia has been prolonged, however, arrhythmia may develop into ventricular fibrillation.

Special curved needles 5 inches long are now available for auricular puncture, and are inserted through the third right intercostal space close to the sternum and directed downwards and towards the mid-line.—I am, etc.,

London, July 13th.

C. LANGTON HEWER.

SIR,—Mr. R. A. Grant is to be congratulated upon his case of recovery after prompt injection of adrenaline into the chamber of the ventricle (July 13th, p. 64). Whilst giving anaesthetics as a hospital resident about ten years ago I dealt with two cases in this way, the first unsuccessfully. In the second case, in order to make as certain as possible that the needle had gone through the muscle, blood was withdrawn into the syringe before injection of the adrenaline. It may be, also, that the stimulus of the needle produces contraction of the cardiac muscle.—I am, etc.,

Manchester, July 15th.

W. B. MCKELVIE,  
M.D., Ch.M., F.R.C.S.E., D.L.O.

\*\* In an annotation in the *Journal* of March 23rd (p. 593) we wrote: "On these grounds there is something to be said for attempting to restart contractions by puncturing the right auricle, the chamber in which the contraction of the whole heart normally originates."

### Serum Treatment in Puerperal Septicaemia

SIR,—Mr. Harold Balme, in your issue of July 13th (p. 84), records a case of puerperal fever observed by both of us, in which recovery followed a heavy invasion of the blood stream—300 streptococci per c.cm. He is convinced that the recovery was due to the serum he had administered before sending the patient to this hospital. But he omits the rather important fact that the blood culture showing this high streptococcal count was obtained *eleven days after the last dose of serum*. Are we to suppose that the serum, which had failed to control the infective process during the preceding seven days (blood culture three times positive, and increasing high fever, during that period), suddenly became operative on the eleventh day? I prefer to confess quite frankly that I do not know what was responsible for checking the infective process, but I was not very surprised to see it checked, because, during the previous twelve months, I had watched eleven out of fifteen cases of proven septicaemia (blood culture positive) recover *without any serum treatment* (see *Lancet*, May 11th, p. 1085).

Dr. Selwood Lindsay, in his paper in the *British Medical Journal* of July 6th (p. 6), offers us two figures in support of his many dogmatic statements. He tells us that eighty-three patients received anti-scarlatinal serum during the twelve months ending March 31st, 1935, and that 81.92 per cent. of them recovered. He does not tell us the essential point about these cases—namely, how many of them were infected by haemolytic streptococci. Reference to my paper will show that in a much larger series of Queen Charlotte's cases (346) extending over four years, *all of whom were definitely infected by haemolytic streptococci*, but who did not receive any serum, the recovery rate was almost as high (77.7 per cent.) as in Dr. Lindsay's series. Taking *all* the cases admitted to Queen Charlotte's and untreated by serum, regardless of whether they were infected by haemolytic streptococci or not, the recovery rate was 88.4 per cent. The other figure quoted by Dr. Lindsay—namely, a recovery rate of 95.45 per cent. in a series of twenty-two cases of "puerperal haemolytic streptococcal sepsis"—is admittedly considerably higher

than that for the 346 Queen Charlotte's cases just quoted. But the difference is not at all surprising in view of Dr. Lindsay's statement that the majority of the twenty-two cases had become infected during an epidemic in the infirmary, and were therefore "immediately accessible to prompt treatment." Our experience at Queen Charlotte's certainly indicates that infections by haemolytic streptococci following normal delivery and treated from the very beginning under the best conditions in hospital (even without serum) are much more likely to remain localized to the genital tract than infections associated with injury following instrumental or difficult labour and not treated in hospital from the beginning. *If they do remain thus localized—even if they are infected by haemolytic streptococci—their recovery rate is approximately 100 per cent.*

For these reasons I do not think that Dr. Lindsay's evidence, as given, helps us to form an opinion as to whether the administration of serum played any part in the recovery of his patients. Nor does it suggest that the serum was actually harmful. It is not at all unlikely that certain sera will be found to exert an unfavourable effect while others do not. That is, indeed, what the mouse experiments of Penfold and Butler (*Med. Journ. Australia*, 1932, i, 717) seem to show.—I am, etc.,

LEONARD COLEBROOK.

Queen Charlotte's Maternity Hospital, Research  
Laboratories, London, W.6, July 15th.

### Para-nitrophenol in Fungus Diseases of the Skin

SIR,—The letter of Dr. Madge Robertson on the above subject in the *Journal* of June 29th (p. 1339) should be of considerable interest to practitioners in tropical localities. My own experience of the efficacy of para-nitrophenol has been in cases of so-called "Hong-Kong foot." It has proved most successful. My original information about it was from a patient connected with the chemical side of the rubber industry in Malaya. He had a very troublesome infection of the skin of both feet, quite typical of "Hong-Kong foot"; he had seen many doctors and carried out varied forms of treatment with no success, so that on his own idea he soaked his feet daily for about a quarter of an hour to half an hour in a solution of para-nitrophenol. He stated that the condition entirely cleared up within a month. He recommended the treatment to a man and wife home on leave from Malaya, who were both suffering from the same trouble, and again the treatment was quite successful. In my own practice it has also proved successful in the few cases in which I have tried it. A daily foot bath for about twenty minutes for three or four weeks seems sufficient. It is clean, staining of the skin is slight, if it occurs at all, and can easily be removed if required. The chemical is prepared by the Imperial Chemical Industries. Recently it also proved very efficient in a case of similar infection of the hands.—I am, etc.,

London, E.C.4, July 15th.

O. MARRIOTT.

### Operation for Mastoid Disease

SIR,—I am not criticizing Mr. D. A. Crow's letter in the *Journal* of June 15th, dealing with Mr. Salkeld's published notes of ninety-one cases of the cortical mastoid operation. I must congratulate Mr. Crow on his admission that he operated on 200 cases of mastoid disease before he realized the importance of non-precipitancy in dealing with acute pyogenic infections. It proves, if proof is necessary, how important it is that one should have a wide experience of general medicine before settling down as a specialist.