a bed-pan, but did not complain of any dizziness or other symptoms. About ten minutes after the completion of the injection he began to regain his colour and by this time his bleeding had stopped.

When the patient was last seen about nine weeks after the injection of pituitrin, he had had no further haemoptysis nor even any staining of his sputum.

It is, of course, possible that this control was purely coincidental, but when the suddenness of the arrest of the haemorrhage is considered, together with the case reports of Rist and Trimble and Wood, it appears that this therapeutic measure is the only effective method available in the control of haemoptysis without resorting to ligature of the vessels, and even that is practicable only if the side from which the bleeding takes place is known.—I am, etc.,

Watford.

N. D. J. DE S. WIJSEKERA.

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Reversible Diabetic Sixth Nerve Palsy

SIR,—The sixth is the cranial nerve most easily paralysed in intracranial disorders, especially in conditions of increased intracranial tension or basal meningitis. Diabetic neuritis has also been a recognized cause of a sixth nerve lesion, but considering the wide incidence of diabetes mellitus such involvement is a rarity. Even in India, where the vast majority of diabetics still spend a lifetime of uncontrolled and untreated diabetes and are often brought to light only when some surgical or medical complication forces them into a hospital, the cranial nerve lesions are hardly ever seen. The following case is reported from a hospital of over 3,000 admissions to medical wards yearly, and over 47,000 medical out-patients. Even in these numbers this nerve lesion is rare.

A man aged 50 years was admitted for diplopia of six weeks' standing. He had typical right-sided rectus paralysis. No other neurological lesion was elicited. There was no history of headache. He had had symptoms of polyuria, increased appetite and thirst for about two years, but he had never sought medical advice. He was of average build without any cachexia, but complained of some pain in his calf muscles. Dextrose tolerance test showed a mild diabetic curve with a fasting level of 140 mg.% rising to 240 mg.% after one hour and maintaining a blood-sugar level of 220 mg.% after two and a half hours of administration of 50 g. of oral glucose. He had glycosuria of 6% at the height of the blood-sugar curve. The Wassermann reaction and Kahn test were negative, and the blood count was normal. The field of vision of both eyes was normal. The vision of the right eye was 6/60 and the left eye 6/36, and there were old trachomatous follicles in both eyes. The urine was albumin free.

Treatment consisted of a diet of 300 g. carbohydrate, with fats 66 g. and proteins 76 g., insulin 30 units a day, and vitamin B₁ 50 mg. once a day. This kept the patient sugar-free and cured his sixth nerve paralysis within a period of four weeks as well as the pain in his calf muscles. He remained symptom-free for the next four weeks of observation.—I am, etc.,

Lucknow, India.

N. N. GUPTA.

Indian Medicinal Plant in the Treatment of Hypertension

SIR,—Cases of hypertension are fairly common, and the condition is seen in all age groups. Treatment is usually palliative, and consists of both medical and surgical measures. It is not possible to use one particular drug for a prolonged period because of the tachyphylactic nature of most drugs. Synthetic chemical compounds having sympathicolytic and adrenolytic properties are used along with sedatives of the central nervous system.

Lately a medicinal plant growing in certain parts of India is gaining considerable importance in the treatment of hypertension. The plant is *Rauwolfia*, and belongs to the natural order *Apocynaceae*. Two varieties are now being extensively investigated for

hypotensive properties—(a) *serpentina* and (b) *canesceus*. The writer has worked on both the varieties and has found them to be adrenolytic; *R. canesceus* is a more powerful adrenolytic drug than the *serpentina*. The roots of *serpentina* and leaves of *canesceus* are used, and several active alkaloids have been isolated. Besides its adrenolytic property, the plant is markedly sedative and has been found to induce sleep. For its central sedative action the plant is used in some forms of insanity associated with insomnia. *R. serpentina* appears to have more marked hypnotic action than the *canesceus*. The hypotensive action of the plant is due to its depressing or paralysing the sympathetic component of the autonomic nervous system, the vasomotor centre of the medulla (as seen from the depression of the carotid sinus reflex), the myocardium, and relaxing the arterioles. Large doses or prolonged administration of preparations of *Rauwolfia* produce nausea, vomiting, bradycardia, and respiratory depression. In animal experiments I have found the usual mode of death to be due to respiratory failure. Another drawback of this drug is that it is without effects when used clinically for a prolonged period.

Preparations of *R. serpentina* sold in the Indian market consist of the alcoholic tinctures or liquid extracts with dosage varying from 10 to 30 minims (0.6 to 1.8 ml.) t.i.d., or tablets prepared from the roots of the plant containing all the active principles.—I am, etc.,

Calcutta.

M. D. CHAKRAVARTI.

New Rh Antibody

SIR,—The Hr factor recently described by Rosenfield *et al.* (*Journal*, May 2, p. 975) fits readily into the scheme of the Rh-Hr types, though it causes further difficulties and paradoxes for workers using the C-D-E notations and sponsoring the cross-over hypothesis. The new antiserum is said to cross-react with agglutinogens rh and Rh₀, determined by the corresponding genes *r* and *R*⁰, so that it simulates the reactions of anti-hr' and anti-hr'' sera, though pooling of the latter sera would give quite different results. Thus we are dealing with an antiserum for a new kind of Hr factor. We propose to call the new antibody anti-hr and the corresponding factor hr. Since the new antibody merely defines a new cross-reaction between agglutininogen rh and Rh₀ not shared by any of the other agglutinogens, and does not differentiate any new varieties of agglutinogens, no change in the names of the agglutinogens or genes is called for. If anti-hr serum becomes available for use as a diagnostic reagent, it would largely take the place of anti-hr' and anti-hr'' combined, though pooling the latter two sera would largely nullify one another's reactions.

For those using the C-D-E notations the situation becomes quite complex. Race proposes calling the new factor *f*, the absence of which he indicates by the symbol *F*. This is the reverse of the procedure generally followed, and here the C-D-E workers again become inconsistent, since they sometimes use small letters to indicate the absence of a factor designated by them with a large letter—for example, *little c*, *d*, and *e* to indicate the absence of large *C*, *D*, and *E*. Race states that the "simplest" genetic explanation entails postulating a new pair of genes *F* and *f*, so the rhesus "chromosomes" formerly supposed to contain triply linked genes now are postulated to contain quadruply linked genes. The supposed "advantage" of the C-D-E notations that they include all the Rh blood factors found in a blood now becomes more obviously a disadvantage, since type rh blood must now be called type *cdef/cdef*, or *ccddeeff* or (— — — + + +), etc., depending on the whim of the C-D-E worker of the moment. As many as 20 different methods of designating the Rh-Hr types in terms of C-D-E are in use. Race and Sanger's book uses five different symbols for the same Rh-Hr types, while the most recent issue of *Annals of Eugenics* gives three different C-D-E notations in three articles, though two of these are by the same author. As a result the C-D-E nomenclature not only says too much (by including *little d*, for which there is no test) or too little (by using symbol *CwDe* instead of *CCwDe* in the case of Rh_w blood), but in addition the C-D-E nomenclature must be subjected to a complete revision each time a new blood factor is found, so that it becomes more and more cumbersome as more facts become available. The basic cause of the state of confusion prevailing among C-D-E workers is their failure to distinguish between blood factors and agglutinogens (Wiener and Wexler¹). Since the number of blood factors characterizing an agglutininogen depends mainly on one's industriousness

in preparing and studying antisera (Stormont *et al.*)² such workers will find it necessary to stretch the Rh-Hr "chromosomes" to accommodate more and more linked "genes," in addition to postulating more and more "deletions" and "duplications."

The cross-over hypothesis when applied to the new factor hr (or f) gives rise to still another paradox. According to Race *et al.*³ "chromosome" Dce (R⁺) (D, C, E is the arrangement postulated by Fisher and Race for the supposed "genes" D, C, E in the chromosome) arose in caucasoids by crossing-over of genotypes DCE/dce, DCE/dce, and DCE/DCE. However, in the last-named case (now DCEf/DCEf) this would result in the production of "chromosome" DceF instead of Dcef. It can readily be shown that crossing over in the other cases also yields "chromosomes" in addition to those listed in the article by Rosenfield *et al.* For a more complete presentation of the evidence against the cross-over hypothesis the reader should consult the recent articles by Wiener,⁴ Simmons *et al.*,^{5,6} and Rife.⁷ One of the main objections to the C-D-E notations is that no two workers use the symbols in the same way, and, in fact, the same worker may use several variations of the nomenclature in the same book or article. The first step to clearing up this confusion would be for the C-D-E workers to get together and agree on a single uniform nomenclature. Editors of journals, at the same time, should insist that if the C-D-E notations are to be used at all in articles they conform to a uniform recognized standard.

An important question is whether the various Rh-Hr blood factors represent different chemical substances or structures within the same molecule. That they probably do not represent different chemicals is indicated by the interference between the reactions of the blood factors of the same agglutinin. For example anti-rh' sera generally have a higher titre for type rh' blood than for type Rh₁ blood, and, similarly, anti-rh'' sera have a higher titre for rh'' than for Rh₂. Nevertheless, Rh₀ seems to be a structure separate from rh' and rh''. For example, shortly after the Rh₀ blocking antibody was discovered (Wiener⁸) we found that it was possible to block the Rh₀ reaction of type Rh₁ and type Rh₂ bloods without preventing their reactions with anti-rh' and anti-rh'' sera respectively (Wiener *et al.*⁹). At the same time these observations show that the Rh-Hr agglutinin must be a relatively large molecule. Moreover, the Rh₀ blocking antibody must be a relatively small molecule as shown also by its ability to pass through the intact placental barrier (Wiener and Berlin¹⁰). On the other hand, the properties of the Rh-Hr agglutinin molecule represented by the blood factors hr' and hr'' (and their reciprocals rh' and rh'') must either be in close proximity or overlap, as shown by the reactions of the new anti-hr (or anti-f) serum.—I am, etc.,

New York.

A. S. WIENER.

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Anticoagulants in Myocardial Infarction

SIR,—I should like to support Dr. R. A. Murray Scott's plea for more energetic treatment of shock in this condition by the general practitioner (*Journal*, May 30, p. 1223). The severely shocked patient may not survive the journey to hospital, and a great opportunity to save the life of such a case lies in the hands of his own doctor.

I give nikethamide by intravenous or intracardiac injection, as an emergency measure, in moribund cases, and I believe it is often possible to keep these patients alive by combining this measure with the immediate institution of anticoagulant therapy by means of intravenous heparin. By continuing both therapies the critical first 48 hours can usually be tidied over. Pressor amines offer another hopeful line of treatment in combating shock, and the use of "mephentermine" (N-methylphenyl tertiary butylamine) has been reported¹ to reduce considerably the mortality in this type of case. On the other hand, noradrenaline has not proved so successful.² In this country injection of methylamphetamine hydrochloride ("methedrine") is freely available,

and as Bromage³ has shown this compound to be a powerful vaso-pressor drug its use might be considered in myocardial infarction. I have not yet had an opportunity to employ it, but am carrying a supply of ampoules in my bag for the next occasion which arises.

Dr. Murray Scott has suggested⁴ that a reduction of prothrombin level to 60-75% may be sufficient in the treatment of coronary thrombosis and convenient for domiciliary management in general practice. I would dispute this contention, as I have observed on more than one occasion a striking return of pain when the prothrombin level has been allowed to rise to 50%. The work of Payling Wright and Kubik⁵ has shown that recanalization of experimentally thrombosed arteries occurs rapidly under the influence of adequate anticoagulant treatment, although Payling Wright has pointed out⁶ that these experiments were conducted on normal arteries and the results may not be comparable when applied to atherosclerotic coronary vessels.

By using phenylindanedione ("dindevan") it is easy to obtain a consistent prothrombin reduction within the accepted therapeutic range without the necessity for unduly frequent prothrombin estimations, although I prefer to have the latter performed on alternate days when employing this anticoagulant.—I am, etc.,

Twickenham.

DAVID WHEATLEY.

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Importance of Post-mortem Examinations

SIR,—I wish to support Dr. F. E. Loewy (*Journal*, May 23, p. 1163) in his efforts to make post-mortem examination the rule on patients who die at home. I think it would be wrong, however, for this work to be loaded on to the hospital pathologist. Its value would be much greater if the general practitioner carried out the examination, and this would become a practical proposition if adequate mortuary accommodation and an assistant to open skull, etc., were available, plus a moderate fee.—I am, etc.,

Risca, Mon.

M. T. WADE.

Marooned Children

SIR—I was surprised that neither Dr. Douglas Guthrie's article on King James IV of Scotland (*Journal*, May 30, p. 1191) nor your leading article (p. 1207) made mention of a much earlier attempt to discover what language children, isolated from the speaking world, would speak. Herodotus in his *History* describes a similar royal experiment, differing only in detail from King James's, performed by King Psammetichus of Egypt.

The children, who had been suckled by goats, spoke one word only, "becos," which was identified as the Phrygian word for bread. Thus the King concluded that the Phrygians were the most ancient people in the world. Is it possible that King James was acquainted with this story? —I am, etc.,

Windsor.

JAMES WHITBY.

Claims for Negligence

SIR,—I have read with interest the article by your medico-legal correspondent (*Journal*, April 25, p. 945), with which I am mainly in agreement. In particular I have noticed an increase of claims in this region as a result of the Legal Aid and Advice Act, 1949.

There is one point, however, which is causing hospital authorities and, I believe, their medical staffs much concern, where, if there has been no recent change in the law, there has certainly been a change in its application, and that is the tendency of the courts to extend the doctrine of *res ipsa loquitur* to claims where negligence is alleged during the treatment of patients in hospital. The effect of the doctrine, as your readers are no doubt aware, is to shift the onus of proof from the plaintiff to the defendants.

The case which has caused the trouble is *Cassidy v. Ministry of Health* (Fahrni—third party), a Court of Appeal decision in