

shock treated, by practitioners who would probably shy if one suggested that they were using homoeopathy, by further shock. The result has been that instead of having one more or less serious trauma to deal with, one has had to try and deal with the double dose, the second one deliberately inflicted. As to leucotomy, again one wonders whether society is going to be any the better for having more of less decerebrated robots let loose in it, simply because they have been so mutilated as to be incapable of behaving badly.

Many will doubtless agree that medicine is primarily concerned with human beings: not with just one aspect of them, but with the whole man, bodily, psychic, and spiritual. It seems, therefore, that our standards should go further and reach deeper than to judge results merely by the outermost surface of that man—i.e., his behaviour. I suggest that, going beyond Dr. Winnicott's suggested "habeas cerebrum," what is required is "habeas hominem," so that we are not deceived by short-sighted views.—I am, etc.,

London, W.C.1.

L. J. BENDIT.

SIR,—Whatever force there may be in Dr. D. W. Winnicott's protest (Dec. 22, p. 901) against a too-enthusiastic application of physical methods of treatment, such as electrical shock therapy and prefrontal leucotomy, in mental illness—and his protest appears to be only too well justified—there is strong reason to emphasize the need for an adequate appreciation of the psychological background in these cases, the psychological as well as the physical reactions of the patients to the treatment, and the psychotherapeutic requirements of the situation. This caveat would have been unnecessary a few years ago, but there is a perceptible "retreat from psychology" among a section of psychiatrists, both young and old, which, though only a passing phase not unconnected with the war, is likely to be unfortunate for patients while it lasts.—I am, etc.,

London, W.1.

WILLIAM BROWN.

Descent of the Testis

SIR,—Dr. Mary Wood's suggestion (Dec. 15, p. 860) that the descended testis and scrotum of mammals "might be a means of sexual attraction in animals having few other visible sexual differences" is of the greatest interest, but it is difficult to understand how they could function in this way. The lower mammals generally, in contrast to the amphibians, typical reptiles, and birds, have a highly developed olfactory apparatus, including an expanded nasal cavity, numerous conchae, and complex nervous arrangements; and this apparatus is used for finding and following mates and for retrieving the young. Among reptiles, the snakes and lizards also use their sense of smell for finding mates and food, but in these forms it is Jacobson's organ that has been elaborated as the receptor, and it is only in some extinct mammal-like reptiles, related to the mammalian ancestral line, that a complex olfactory apparatus is known to have existed. Associated with these developments are the anal and other scent glands so widespread in the various orders of contemporary mammals. So in primitive mammals the only phase of the sexual cycle in which the scrotum could be of importance as a visual stimulant would lie between the approach, conditioned by scent, and actual contact, and it is difficult to see how it could function effectively.

In those mammals in which smell has become of relatively less importance in mating the scrotum has not become noticeably more conspicuous. In monkeys arboreal life has led to a secondary simplification of the olfactory apparatus and to the loss of the anal glands (though in lemurs the numerous conchae are retained and pairs follow each other and mothers their young through the branches largely by scent). Brightly coloured sexual skin and occasionally phalli and cheeks are found, but the scrotum is not particularly conspicuous. In ruminants the scrotum may certainly be large, but special sexual behaviour and often bodily features such as horns are more striking characters differentiating the sexes. In no group of mammals is there any parallel to the elaboration of form and colour associated with intimidation, courtship, and unpalatability found in the birds and amphibians, where visual, rather than olfactory, considerations are paramount.

In man, where with the thinning of the hair and the fully upright posture the scrotum has become more conspicuous, it

is not that organ which has been chosen for ornamental elaboration: it is rather the breasts (*Homo* is the only genus in which the non-lactating breast remains large and fatty), the buttocks (particularly in the Bushman-Hottentot), the umbilicus (more conspicuous in *Homo* than in other animals equally well provided with subcutaneous fat), and the dimples over the posterior superior iliac spines. Possibly hairlessness itself was conditioned by sexual rather than by natural selection (suppression of vermin). Opinions may differ as to whether, judging from the results, our ancestors showed good aesthetic appreciation and chose their mates well, but there is no evidence that in us or in other mammals the scrotum has played any particular part as a centre of attraction. The descent of the testis remains one of the mysteries of evolution, in spite of the partial solution so clearly put forward by your contributor Mr. Badenoch (Nov. 3, p. 601).—I am, etc.,

Anatomical Department,
St. Thomas's Hospital, S.E.1.

R. WHEELER HAINES.

Routine Treatment of Malaria with Intravenous Quinine

SIR,—During the Japanese occupation of Hong Kong, when forced by economic reasons and shortage of drugs, the routine treatment of malaria was with intravenous quinine. It has been shown in a series of 100 patients that the slow injection of quinine dihydrochloride by this route has great advantages, for it is absolutely painless and does not lead to necrosis of the muscular tissue of the buttocks as intramuscular injections do even under sterile conditions. The plasmodia in the blood stream disappear rapidly, the fever drops in one to two hours after the injection, and the temperature usually reaches normal much more quickly than after intramuscular application. I have used intravenous quinine dihydrochloride not on specially selected material, but on the undernourished population of Hong Kong under Japanese rule. The dosage was 0.25 to 0.5 gramme in 1 c.cm. distilled water. I did not use glucose because it was too expensive. The injection took two minutes, and aspirated blood was constantly mixed with the solution of quinine. The temperature in 95 cases fell to normal after one injection only, while in 5 cases (subtertian malaria) a second injection was necessary five hours after the first. Racially the 100 patients were 10 Europeans, 36 Chinese, 54 Indians. The last group were watchmen or prisoners of war in a very bad physical condition. The reactions of the patients are given below:

Reaction	Objective and Subjective Signs	Number of Cases	Kind of Malaria
None		80	73 tertian 4 quartan 3 subtertian
Slight	Feeling of heat in chest and of slight pressure on the heart	15	12 " " 3 tertian
Moderate	Dizziness, nystagmus, nausea, burning sensation in chest	3	2 mixed 1 subtertian
Severe	Severe dizziness, nausea, tachycardia, extrasystole	2	2 " "

No patient collapsed and no death was reported. I conclude that it is better to use quinine dihydrochloride intravenously than intramuscularly, as this route is safe and quick and all the quinine administered enters the blood stream.—I am, etc.,

Hong Kong.

W. WINTERSTEIN.

National Research into Tuberculosis

SIR,—The suggestion put forward by Dr. George Luntz in his letter (Dec. 1, p. 781) is not only very timely but in a sense rather overdue. I have now been connected for about three years with one of the largest sanatoria and E.M.S. hospitals in the country. The difference between the two types of patients (tuberculous and E.M.S.) is so tragically glaring that it cannot be missed. The age groups of Service tuberculous cases and Service casualties from all other causes are broadly the same. But whereas a patient in the latter group, with the help of sulphonamides, penicillin, and plastic and modern orthopaedic surgery, stands a very fair chance of getting over his disabilities, one in the other group (tuberculous), in spite of all modern medical and surgical treatment, stands with the sword of Damocles perpetually hanging over his head.