Sir,—We have read Dr. R. P. Harbord's letter with great interest. Criticism from such a source deserves careful attention, and while we feel that it is right in principle, yet we also feel that here it is hypercritical.

He need not be unduly anxious regarding our use of the mean blood pressure (diastolic blood pressure + pulse pressure). The results computed in terms of systolic blood pressure are essentially similar (81 per cent rise; 12 per cent fall; 7 per cent no change). The mean blood pressure was chosen as a convenient comparative index which would take systolic and diastolic values into account.

Omission to describe the method by which the blood pressure was measured was due to a desire to be concise. We do not think that the method used is a matter of importance. Naturally, the same method was used for all readings in any one case, and the "endpoint" was therefore the same. Variations will be detected whatever method is employed, and it is upon these variations that our results are based.

We agree that changes in the patient's general condition and in the systolic blood pressure do not necessarily coincide, but there is often a correlation between blood pressure and physical state, especially when certain vasopressor or depressor drugs have not been given. It is only the blood pressure and pulse rate which are susceptible to easy measurement, and the pulse rate is not greatly influenced by ouabain.

"Nothing was stated of how many of the 57 instances warranted the conclusion that the response to transfusion was disappointing" because it was true in all these cases. Had the response to fluid replacement been satisfactory, no ouabain would have been needed or given. Blood loss was not accurately measured, and this criticism may have some validity. However, we thought that fluid was adequately replaced, and we are sure that there was no gross under-replacement. We plead guilty to not giving a definition of shock, and we doubt if any definition has yet been made which is entirely adequate. To attempt such a definition would surely call down wrath, while use of the term without exact definition implies a state which is at least well-known although difficult to describe.

We attempted, in our list of indications for the use of ouabain, to depict the type of clinical situation which we envisaged. In some instances ouabain was given prophylactically to guard against possible circulatory depression during anaesthesia, sometimes blood loss was severe as in our Case III, on other occasions blood loss was normal for the particular operation, yet hypotension had occurred. We would emphasize that these results were obtained in the course of routine practice, fluid replacement being used as indicated. We did not feel justified in withholding it solely to judge the effect of ouabain, hence the number of occasions where it was administered alone were necessarily few.

One can only guess in practice at the underlying cause of a patient's hypotension, but we believe that in ouabain the anaesthetist has a useful drug, free from some of the disadvantages of conventional pressor agents.

We think that the question "how does one determine in a patient with hypotension whether the main cause of deterioration lies in the heart, or in the vessels or both?" is at least partially answered in our paper by the therapeutic test: if the condition responds to ouabain but not to fluid replacement, presumably the failure with fluid is in part due to cardiac insufficiency. How serious the condition is depends on the circumstances, but a measure which hastens the restoration of normal blood pressure, thus shortens the period of hazard to the patient. He is a brave man who can determine limits to the safe degree and duration of hypotension.

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