A PLEA FOR A NATIONAL BLOOD TRANSFUSION CONFERENCE

BY

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The paper read by Mr. Denis Browne at the recent Oxford meeting of the British Medical Association, and the discussion which followed, have impelled me to proffer some comments and a suggestion. I do so with all diffidence as a layman, but perhaps I may venture to describe myself as an intelligent layman with a certain amount of experience of blood transfusion from an unusual angle.

Mr. Denis Browne said that he could imagine a Utopia where blood transfusion could be obtained rapidly in any part of the country. Why is the suggestion Utopian? In London and in most of the great cities it is practically achieved, and only minor difficulties prevent its general adoption. Not a week passes without my receiving at least two letters asking for guidance in forming a new service somewhere in the provinces.

Varying Technique and Conditions

One problem is the variation in technique and conditions that exist in different localities. Mr. Denis Browne urged that the technical problems should be studied and the best method standardized, and I am strongly in favour of this. Even in London, where a certain amount of standardization of conditions has been obtained, considerable divergencies of practice exist, some of which tend to alienate or deter a voluntary donor, whilst in the provinces the most conflicting principles obtain in different areas.

Thus when a member of the London Service removes from the metropolis and joins a local service or panel he occasionally finds some method or condition in operation that antagonizes him and causes him to cease his donations. For example, it took us quite five years to abolish the practice of cutting down upon a donor's veins, and although I was told repeatedly that it was impossible to avoid this in varying percentages of cases, ranging from 10 to 60 according to the informant, we have only had six such cases in the past six years, each by a colonial or provincial surgeon who had not been made aware of our regulations. Yet it is still extensively practised outside London.

Another suggestion by the speaker was the provision of specially trained men for the operation. Here again I decidedly concur. It is not only a case of the convenience of the donor, but the well-being of the patient.

I recall a case this summer when a surgeon failed utterly to obtain any blood from a donor whose veins had been classed by our medical officer as " good." She had served quite satisfactorily on three previous occasions, but at this hospital the surgeon had been unable to obtain blood from either her arms or legs (*sic*). During the following night I received another call from the hospital and learned that the same surgeon would operate. The obvious donor lived quite near the hospital, but his veins were only recorded as " fair." In view of the afternoon's experience I did not feel justified in sending for him, and had to go much further afield, entailing a delay of nearly an hour, and in the meantime the patient succumbed.

It is not unusual for a donor with a large number of transfusions to his credit to be reported to us as quite unsuitable for future donations, but who has since served repeatedly without difficulty. Some of our most successful operators inform me that they practise regularly in a V.D. clinic, and this would suggest a method of gaining deftness in inserting the needle.

The conviction has been growing upon me for some while that the time is ripe for an effort to be made to pool the knowledge and experience gained since the war and formulate a model set of recommendations for both operative technique and administration of blood transfusion services. From the experience of over 20,000 transfusions we have evolved certain conditions which we enforce, and others which we recommend, and these have met with success and practically general approval. We have the advantage of having been able to survey the whole field from the point of view of the donors, some thousands of whom have been practically continuously under the supervision of our medical officer, but most writers on the subject have necessarily gained most of their experience and information as ancillary to the treatment of their patients.

Problems for Consideration

I would suggest that steps should be taken to convene a conference in London of all persons interested in blood transfusion, technical and administrative, and that this should be open to general discussion, without set agenda, of the subject in all its aspects. At the end a committee should be appointed to co-ordinate the views and opinions expressed and endeavour to frame a series of recommendations covering the entire subject. These could be circulated to all hospitals and blood transfusion services in the country as a basis. A year later the conference might be re-summoned to consider the replies and the results of the year's experience where the recommendations had been adopted. Personally I should like to see an annual conference established, as is the practice in many European countries. It may be recalled that the organizers of last year's International Blood Transfusion Congress at Rome were unable to discover any body in this country that could be said to represent the movement in its entirety, and accordingly requested the British Red Cross Society to send delegates. An interchange of views with foreign nations would be of obvious advantage to this country.

Among the problems for consideration I would mention the following:

Whole versus Citrated Blood.—There is so much difference of opinion on this point that a technical discussion is clearly needed in the hope of arriving at a decision.

Cross-grouping of Donor Against Patient.—We consider this a *sine qua non*, yet a great many London hospitals rarely or never carry it out. During the past eight months seventy-eight donors have been found to be incompatible against patients of their own group. This has been found especially prevalent in Group I (Moss). I belong to this group, and have been found incompatible in twenty-two cases out of forty-four, but I have frequently been told that it was unnecessary to cross-test, as my patient was a " universal recipient."

Universal Donors.—It would be difficult to compute the number of cases of grave reaction, sometimes terminating fatally, caused by belief in this convenient group. Yet it is still prevalent, and many Press appeals for donors still explain that less than half those applying will be enrolled, as comparatively few possess the type of blood required. There are two reasons for this, apart from those rare cases where there is not even time to spare to group the patient. These are absence of a pathologist and lack of sera. Grouping is so elementary a process that in London we do not accept the first as an excuse, considering that there should always be an official available who is competent to carry this out. One of the causes of lack of sera has been the high commercial cost of this material, but the British Red Cross Society has recently been successful in standardizing the production of a very high-titred serum at a reduction of 75 per cent. in price, with a special further reduction of 50 per cent. to hospitals affiliated to the London Service.

Time of Cross Test.—If carried out this test varies in time at different institutions from two and a half to forty-five minutes. A donor who has usually been passed as satisfactory in the former time naturally objects if occasionally detained for what he considers an unreasonable period, and, if called during business hours, his employer may complain. Our medical officer considers that a prolonged test is quite unnecessary, as such a delay sometimes produces an appearance of pseudo-agglutination from rouleau formation, but several authorities are convinced that the longer time is necessary.

Professional versus Voluntary Donors.—There can scarcely be two opinions as to the advantages of the voluntary over the professional donor, apart from the questions of cost and liability to disease, but the practice of paying donors is certainly on the increase in this country, whether it take the form of a frank fee or a lump payment in the guise of expenses. Payment attracts

a very different class of person from the voluntary donor, and I have a Belgian record that in the year 1934–5 thirty-eight out of ninety-seven volunteers were rejected for various reasons. In London, over a similar period, only twenty-two out of 591 failed to pass. A surgeon does not feel called on to pay too much attention to the feelings of a well-paid subject, and may adopt a technique that would cause considerable discomfort should he subsequently accept an appointment in a district where a voluntary system existed. The term " voluntary blood donor " is frequently misused, and I was once informed that those in a Midland city where I was speaking were paid four guineas per case plus an annual retainer. Were such a tariff in operation in London the cost of the service, which is at present well under £2,000 per annum, would rise to at least £25,000.

Frequency of Service.—In London there is no set limit to the number of transfusions per donor, and the safe frequency is considered by our medical officer to be four times per annum. In many places in the provinces a limit of ten, or even six, services in all is enforced, thus conveying the impression that the effect of a series of transfusions is cumulative and debilitating if continued beyond a certain point. Periodicity also varies from one to six months. Dr. Bécart of Paris informs me that he finds no difficulty in obtaining 400 c.cm. per week from his donors, and that two of them have served on over 900 occasions, frequently twice in a week. There should be some authoritative pronouncement on this point, as an artificial restriction of total entails a constant repetition of appeals for donors, which is in itself misleading to the public.

Apparatus.—There are over a score of rival instruments on the market, but in my personal opinion the simpler the form the better, if only for the sake of an apprehensive patient or donor. It must be borne in mind that an apparatus, efficient in the hands of the inventor, who has developed his own technique, may prove utterly ineffective when tried by a practitioner unfamiliar with it. I can specify more than one such instrument.

Direct versus Indirect Transfusion.—In London direct transfusion is almost obsolete, but some of its users are emphatic in its praises. I am not entitled to speak as to its value to the patient, but there are many drawbacks to its use, and I should like to see it entirely abolished. There must be a certain complication of apparatus ; one or both needles may be withdrawn by an involuntary or delirious movement ; more staff are required in the limited space available ; the attention of the surgeon is divided ; the donor must either be kept in an uncomfortable position for too long or the patient receive the blood too fast ; and—important in the case of a voluntary and often hypersensitive donor—the latter may have his feelings unpleasantly exacerbated, possibly leading to fainting, by long proximity to a delirious, moaning, or moribund patient. Should the patient collapse or die during the transfusion, a not unknown occurrence, the donor would be still further affected by the attempts at resuscitation.

Position of Donor during Transfusion.—In some hospitals it is still the practice to extract the blood from the donor whilst in a seated posture. This always tends to faintness, and every case of fainting that we have had recorded in the past five years has been found to have followed the use of this method.

Dressing the Puncture.—Iodine is still very largely used, many surgeons and nurses being quite unaware of the risks of an iodine burn. We have more compensation claims of this nature than from all others put together, and I have seen some ghastly cases, some incapacitating a manual worker for weeks, owing to wet iodine pads being bandaged on the arm after a transfusion.

Local Services versus Individual Panels.—One of the objections to independent services is the fear, quite unfounded, that surgeons may find themselves under the control or direction of lay bodies, and this, I believe, is one of the causes of the increase of professionalism, practitioners preferring to pay fees rather than accept a voluntary service directed from outside. In London there is a pool of some 2,250 donors, available to serve over two hundred hospitals in and around the metropolis. I do not think that one of these institutions would willingly return to the old method of enrolling its own donors, keeping records of their availability, change of private and business address, holidays, etc., and calling them up as required. Only a few have attempted this, but most have applied to be reinstated on the list. Almost the only means of notification at their disposal is the police force, and this admirable organization would soon withdraw if called on to take messages to donors at the rate of from twenty to thirty a day. A committee of management, on which both donors and hospitals were fully represented, and with a medical man of outstanding ability to act as referee in the case of complaints, would seem to be the obvious desideratum, and this body would hold the balance between all the hospitals served, thus preventing competition for donors between different institutions in the same area.

Calling up of Donors.—Each district has its own problems and methods of meeting them, and a description of these might disseminate some valuable hints. From my own experience I am not in favour of voluntary motor transport. Calls are few and far between, and it happens in quite half the cases that the motorist depended upon is not available, having forgotten his promise of long ago. I have tried a rota, but without success, as there is usually a fiendish lack of calls that the volunteer in question can undertake, until he has gone off the rota. There is in London so comprehensive a system of transport that we can usually get a taxi, as a final resource, to a donor who has no other transport available. My own endeavours have been devoted to enrolling a band of telephone users who will convey a message to a near-by donor. This takes much less time than that occupied by a motorist, who has to start his car, get it out of a garage, close his garage, and then proceed to a donor at a distance. I am trying to get a telephone user within five minutes' walk of every member of the London Service willing to take an occasional summons. The donor can then usually find his own transport. In sparsely populated areas I would suggest that the local ambulance service should be asked to assist. In most cases a day-and-night service is available, and the list of donors could be kept there. Then, if no other means of conveyance were available, the ambulance itself could collect and transport the donor. In fact, to my mind, an ambulance station would make an ideal office for a local blood transfusion service, and I know of one which is very successfully organized therefrom.

Ages and Sex of Donors.—The London Service accepts donors of either sex and from the ages of 18 upwards, several of the members being over 60, and most of these find themselves benefited by their occasional bloodlettings. A good many appeals quote men only, and limit the age to 25 to 35, thus restricting recruitment. General practitioners are often active deterrent influences. We have had our donors informed: (*a*) that the operation may lead to loss of hearing, (*b*) that it may cause blindness, (*c*) that the blood of a person over 50 cannot possibly be of any value for transfusion purposes. The publicity gained by a national conference would dispel many of these misbeliefs.

Records of Cases.—Although Mr. Denis Browne suggested that it would be invaluable but Utopian and absurd to keep a classified record of all transfusion cases, it may be of interest to the medical profession to know that we have records of over 20,000 cases in London and about 2,000 in the provinces available for reference. They are not indexed, but should the necessity arise I have no doubt that I could obtain voluntary helpers to abstract any information or statistics therefrom.

Conclusion

I have mentioned the above matters as some only of the problems that would be ventilated, if not solved, by the conference which I suggest. Many others will suggest themselves to those interested, problems that affect the medical side of the work on which I am not qualified to speak. Some have occurred to me whilst writing this paper. Perhaps some medical organization will take the lead in the matter. I am at least able to say that the financial question does not present any difficulties.