

# BEMERKUNGEN ZU DEM AUFSATZE DES HERRN DR SCHLIEP ÜBER DIRECTE THIERBLUT-TRANSFUSION

By: J. ROUSSEL

## A TRANSLATION BY PHIL LEAROYD

A copy of this paper titled 'Comments on Dr Schliep's essay on direct animal blood transfusion' by Joseph Roussel, published in 1874 in the journal *Berliner klinische Wochenschrift*, [reference Vol. 11, No. 14, pages 167–168] can be read or downloaded from the following site:

<https://babel.hathitrust.org/cgi/pt?id=mdp.39015049764577&seq=177>

NOTE: Although not stated within the article itself, the 'Dr. Schliep's essay' referred to in the title of this paper relates to the following paper written by Dr. Paul Schliep, the reference for which is:

Schliep, P. (1874) Fall von directer arterielle thierblut-transfusion. [Case of direct arterial animal blood transfusion] *Berliner Klinische Wochenschrift*, 11, 3, 25-28.

<https://babel.hathitrust.org/cgi/pt?id=mdp.39015049764577&seq=35>

[I have also translated this paper as well – PL]

Roussel makes a number of 'suggestions' relating to the content of Schliep's paper beginning with the fact that he identifies that although he would use animal blood for transfusion to a human, this would only be in the absence of finding a human donor (he also makes the point that finding and the preparing an animal takes more time). He states that he would never use an artery for either a human blood donor or a human recipient. He comments of the use by Schliep of bleeding the recipient when he should adverse reactions to the transfusion and states that he only bleeds the recipient prior to transfusing, i.e. depletoric transfusion in cases of poisoning.

The author then proceeds to take the opportunity of describing and illustrating his own direct transfusion device which utilises a hard rubber bulb (instead of Schliep's syringe) which he indicates allows the blood to flow continuously.

I have produced a translation of this paper from the original German into English to hopefully enable its content to be appreciated by a wider audience. Whilst I am obviously aware that instantaneous computer generated translation is available, this process however struggles with accurately reading the original text and interpreting specialist terminology, as well as producing a 'colloquial style' not always representative of the original text. In addition, an 'automatic translation' may either purposely or inadvertently alter the wording to 'make it read better' but in doing so there has to be an element of interpretation involving something on the lines of 'I believe that this is what the author is actually trying to say'. I want to avoid that as much as possible and try to present what the author actually wrote and as a result the reader may find that the English text does not 'flow' as well as it could. Although I have taken great care in accurately identifying the original text and producing a true representative translation of the author's original wording I cannot guarantee that this work does not contain 'translational errors' and the reader is recommended to check specific details against the original text.

I have reproduced the original paragraph settings and general layout as accurately as possible. The illustration of Roussel's 'transfusor' device within this paper is rather poorly reproduced and therefore this is unfortunately also the case in this translation.

### **BIOGRAPHICAL INFORMATION**

Very little information appears to have been published regarding Joseph-Antoine Roussel other than he was born in Geneva in 1837 and studied medicine in Paris. He travelled extensively as a marine surgeon, before returning to Geneva where he established a clinic that promoted alternative / non-standard treatments and devised his blood transfusion apparatus in 1864, which was initially tested on animals and first used for a human transfusion in December 1865. Roussel died in 1901.

### **REMARKS ON DR. SCHLIEP'S ESSAY ON DIRECT ANIMAL TRANSFUSION**

By  
**Dr. J. Roussel** of Geneva.

I will begin by congratulating the honored author of the article (in No. 3 of this year) for having decided on the direct transfusion with the whole blood, which is intended to bring back the honour of transfusion, which has been somewhat discredited by the failures of defibrinated blood. –

I also agree with the transfusion with animal blood, but only in those cases where it is impossible to obtain human blood. For my part, I have always been able to procure human blood when I have needed it, both in Geneva and in Vienna, and I believe that in severe and sudden cases of bleeding it will be easier and quicker to procure blood from a relative or from a philanthropist than to take it from a sheep, the procurement and preparation of which is time-consuming; but one should not expect the philanthropic blood donor to expose himself to a double arterial ligation. – However, arterial transfusion is also an aggravation of the suffering of the blood recipient that is not justified by anything. In his case, Dr. Schliep felt compelled to refrain from continuing the transfusion because of severe respiratory and circulation symptoms, and in order to relieve these symptoms, he had to give his patient a depletoric bloodletting of 3 ounces, after he had transfused only 2-3 ounces to him. – The fall of body heat by 2° in the case of Dr. S. proves that the bloodletting was harmful and that the application of ice was useless. In my transfusions, which I have made in Geneva and Vienna, I have always driven 6-10 ounces of venous blood from the man into the vein, and have always observed a relative increase in body heat and a warm sweat, which has calmed the blood recipient and has been pleasant to him. –

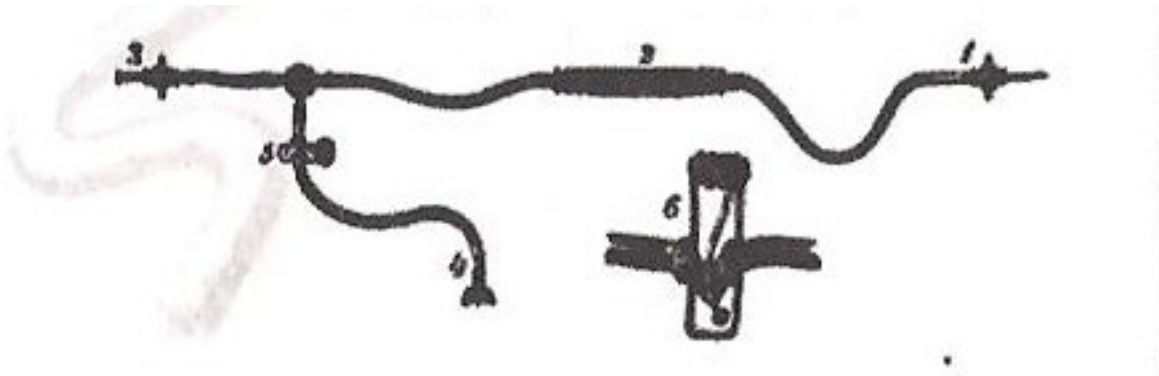
It is true that I have also made depletoric bloodlettings, but they have always preceded the transfusion, and only in cases where it has been some kind of blood poisoning, I have tried to reduce the quantity of the altered blood with these bloodlettings, and at the same time I wanted to create space for the blood to be transfused. –

As far as Mr. S.'s surgical procedure is concerned, may he allow me to remark that in his procedure, which does not allow a continuous influx of blood and always requires short interruptions of the transfusion, he must always be prepared for coagulation behind the valve, and that he can easily press clots into the vessels of the person being operated on when the transfusion continues. It also seems advisable to use cannulas made of hard rubber instead of silver ones, because the contact of the blood with the metal walls of the cannula causes electro-catalytic phenomena, which produce a rapid clotting of the blood; - furthermore, add a little carbonated baking soda to the heated water, and remove the ice completely.

And finally, another remark: if Mr. Dr. S., instead of his complicated pump, wanted to use a simple oval balloon made of black natural rubber, which is provided with 2 valves, then he would have a transfusion device that is easier to handle and less dangerous for the patient; only then allow myself to make the kind request to mention briefly that it is the direct transfuser for animal blood, which I published in the Gazette des Hopitaux and in the Medizinischen Wochenschrift, and exhibited in the medical pavilion of the Vienna World's Fair, where it was seen by several Berlin doctors.

The instrument of which I enclose the illustration forms a part of my "Transfuseur direct" \*), with which about a dozen transfusions were carried out easily and without difficulty in the departments of Messrs. Dittel, Hebra and Neudörfer in Vienna.

### Device for transfusion from animal to animal or from animal to man



1. End cannula for the blood recipient.
2. Transfusor pump.
3. Olive-shaped cannula for integration into the artery of the animal.
4. Water hose.
5. Clamp to lock the water hose.
6. Clamp on a larger scale. Simple device for bending a rubber hose.

The device consists of one piece with 3 tubes. Of these, one goes to the water-tube, the second to an olive-shaped cannula, which is bound into an artery of the blood-giving animal, and the third to the pump of the transfusor. This transfusor allows the operation to be performed without clots in the case of transfusions from animal to animal, or from animal to man, always on the same principle, of filling the device with water in order to expel the air before the blood enters.

It makes it possible to measure the amount of blood transfused by means of the pump strokes. It compensates for the weakness of the heart of an animal too young or too small, to drive the blood through the long tracts of the veins of a man or of a large animal.

\* Invented in 1864.