

JAMES BLUNDELL – EARLY PUBLISHED REPORT OF A TRANSFUSION

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James Blundell (1790-1877)
(Photo credit: Wellcome Library, London)

James Blundell (1790-1877), the noted physician, physiologist and one of the outstanding obstetricians of his day is regarded by many people as being “the father of modern blood transfusion”. He initially performed a number of animal transfusion experiments and subsequently advocated that human and not animal blood be used for transfusion. He stated that he became interested in transfusion as a method of treating post-partum haemorrhage because of his “...own helplessness at combating fatal haemorrhage during delivery” and advocated its use as a treatment for post-partum haemorrhage. Even so, his first blood transfusion, performed on the 26th September 1818, was on a man called Brazier suffering from gastric cancer, who although showing initial improvement post-transfusion, died from his condition 56 hours later.

Blundell (and his colleagues Dr Charles Waller and Dr Edward Doubleday) published a number of papers on their experiences with blood transfusion over a number of years. Although the references to these papers are frequently quoted in many publications, not all of the original papers are readily available and few people are probably aware of their actual content. A paper originally published in *The Lancet* in 1829 (Volume 11, Number 279, pages 431-2) titled ‘Successful Case of Transfusion’ is both informative and eminently readable as an example of the techniques and methods prominent at that time. As such, the content of the paper is reproduced here as originally written:

Dr Blundell on the 7th instant performed the operation of transfusion on a lady at Walworth, assisted by Mr. Poynter (of Somerstown), Mr. Davies, and Mr. Lambert. The circumstances of the case were briefly as follow: - The patient, a delicate woman, 25 years of age, the mother of two children, was taken in labour on the morning of the 7th; Mr. Poynter had been engaged to attend her, but it was found necessary before the arrival of this gentleman to call in Mr. Davies.

There was nothing remarkable in the labour; the child presented naturally, the placenta came away entire in the course of a few minutes, and the patient remained for about an hour and a half, to use her own expression, "quite comfortable". An alarming state of collapse somewhat suddenly ensued and it was found that considerable haemorrhage had taken place from the uterus; pressure was made on the abdomen; ice was introduced into the vagina, and various means employed. No further discharge of blood took place but the patient was in an extreme state of prostration, blanched, and perfectly bloodless in appearance; the pulse not higher than 120, but sometimes almost imperceptible. Stimulants (brandy and port wine) were freely given, but with no marked benefit. In this state of affairs, Dr. Blundell arrived, and determined on transfusion, observing that although there were some symptoms absent, which were necessary to make the case one of an extreme kind, namely, a greater rapidity of pulse, and restlessness; and although there was a possibility of the patient recovering, as the haemorrhage was restrained, yet looking to the exhausted state of the patient, and the slight temporary benefit that had accrued from the use of stimulants, he thought the balance was against her, and that it was desirable to give the pabulum vitae – blood. About eight ounces, procured from the arm of Mr. Davies, were injected at different times - the whole operation occupying upwards of three hours. It was not until the whole quantity had been thrown in that there was any decided amendment in the condition of the patient; she then rallied and became in every respect better. Her convalescence has been gradual and at this time, eleven days after delivery, she is doing well. The lochial discharge has returned within the last three days and she says that she feels stronger and better than in the same lapse of time, after her two previous labours. There has been some tumefaction and likewise pain of the arm in which the transfusion was made; but this has subsided. It is worthy of notice, that the patient expresses herself very strongly on the benefits resulting from the injection of the blood; her observations are equivalent to this - that she felt as if life were infused into her body.

[Notes: "Eight ounces" would be equivalent to approximately 200 mL; the term "thrown-in" was used at the time to mean infused.]

This 'transfusion' therefore took the form of a series of injections using a syringe and the blood donor appears to have been randomly selected, principally because he was there at the time and was willing to 'donate' blood in this way. It was of course pure chance that the donor appears to have possibly been a compatible ABO blood group.