The History of the Theory of the Circulation of the Blood

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It is reasonable to assert that the seminal event in the history of haemorheology is Harvey’s presentation of the concept of the circulation of the blood. Prior to this, the ideas concerning the movement of blood were based, in Europe and Middle East, largely on the principles laid down by Galen, and these had been, in effect, dogma for about a millennium and a half. These principles were basically that blood is formed in the liver, thence it travels to the bodily organs and is consumed – hence there is essentially one-way flow and no circulation of the blood at all. Harvey’s revolutionary idea that blood circulates repeatedly around the cardiovascular system, laid the foundation for haemorheology because once that idea was accepted then the fluidity of the blood immediately became potentially of crucial importance – and haemorheology was born. In this lecture the ideas that preceded Harvey will be presented, i.e. those of Galen, Ibn al-Nafis, Vesalius, Fabricius and Colombo etc. Harvey’s awareness of this background, due mainly to time spent in Padua, triggered his many experimental investigations and discoveries. Ultimately, these led to his astonishing insights published in De Mortu Cordis in 1628 and which changed the understanding of the cardio-vascular system forever.