References


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Janos Balassa and Rudolf Eisenmenger: Forgotten Pioneers of Resuscitation

To the Editor.—The review of Juvin and Desmonts1 is excellent, especially with respect to French contributions to internal cardiac massage. However, two pioneers are missing.

Firstly, Janos Balassa (1814–1868) should be mentioned, who, in 1858, successfully performed cricothyrotomy followed by chest compressions during a case of asphyxia from laryngitis.2,4

Secondly, Rudolf Eisenmenger (1871–1946) published, in 1903, a device for suction and pressure on the abdomen (and lower chest) to promote breathing and circulation.3 He was the first to propose active compression–decompression cardiopulmonary resuscitation (ACD-CPR) and a device (Lautenschläger, Munich, Germany) to do so, which was later named Biomotor.6 With his device at least one successful resuscitation in cardiac arrest is documented.7 Animal experiments in 1929 showed the device to generate not only blood pressure, but also blood flow, as evidenced by carbon dioxide exhalation and transport of intravenously injected dye to all parts of the body.8 Eisenmenger worked on and published information about ACD-CPR from 1903 until 1942.9 He thus upheld external cardiac resuscitation in the "dark age"