CORRESPONDENCE

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The Lazarus Phenomenon Re-revisited: I

To the Editor:—Bray recently described a delayed return of the native circulation—the "Lazarus phenomenon"—in a patient with suspected rupture of the pulmonary artery after 23 min of unsuccessful resuscitation using the standard advanced cardiac life support (ACLS) protocol.[1] No mechanism could be provided for this phenomenon. One possible explanation may be related to increased airway pressures during the resuscitative effort. If high airway pressures developed as a consequence of vigorous ventilatory support, these in turn would give rise to high pleural and right atrial pressures and result in a decreased venous return to the heart and decreased cardiac output. (Although it is stated that the tracheal tube was advanced into the right mainstem bronchus, no further details concerning ventilatory management are mentioned.[1]) The concealed blood loss in this particular patient[1] may have magnified the reduction in cardiac output associated with elevated airway pressures. At the end of ACLS, return of spontaneous ventilation (gasping) may have augmented venous return and permitted an increase in cardiac output.

In addition to the two cases of the "Lazarus phenomenon" reported in 1982 and cited by Bray,[1] there have been two recent reports of this phenomenon in the literature.[2,3] For each, the explanation proposed for the restoration of spontaneous circulation after cessation of ACLS was similar to that briefly outlined above.

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The Lazarus Phenomenon Re-revisited: II

To the Editor:—Bray[1] describes the Lazarus phenomenon as the spontaneous return of native circulation after cardiopulmonary resuscitation (CPR) is abandoned. His patient did not survive, but two of the three other reported cases[2,3] left the hospital to independent life after CPR was abandoned.

Also described is the Lazarus sign[4–6] in patients who have been diagnosed as brainstem dead but who make spontaneous purposeful movements, apparently as though struggling to breathe, after artificial ventilation has been discontinued. None of these patients survived, but none were given the benefit of further CPR. His presumption of gross under-reporting also would apply to these situations and for the same reasons.

In view of these reports and the increasing mass of published evidence that the fulfillment of brainstem death criteria does not establish the total cessation of all brain activity, the question must be asked: "How many of the patients used for organ harvesting worldwide might have recovered, had CPR been continued?" The question is more urgent considering that patients used for organ harvesting both require and receive routinely full general anesthesia with paralysis for the performance of the surgery—a situation difficult to reconcile with that of a corpse. That some operating-room personnel share these concerns is evidenced by operating-room registers that record the time of death of the patient as some time after the commencement of surgery to harvest organs.

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