Dear Editor:

The article "Case Reports: Thrombus Formation in the Extracorporeal Circuit" by Hardin in JECT., 16:27-32, 1984, suggests that fundamental inadequacies were committed in both cases.

In the first case, 2 units of PRBCs anticoagulated with CPDA-1 solution and added to a pump prime of LR/D5W and 6% Hetastarch, implemented with 50 mg Heparin, constituted a favorable mixture for thrombus formation. Furthermore, this process was activated by stagnant for 48 minutes concurrently in direct contact with oxygen and foreign surfaces (Factor XII). Studies on this type of reaction have been reported previously.[1,2,3] It is therefore concluded that the concept of hypercoagulability of the blood donor is not applicable in this instance. Adequate heparinization is the key means to prevent clotting in the extracorporeal circuit. Every banked PRBC unit to be added to the pump, before, during or after bypass, should be converted with heparin. Moreover, a safe practice dictates not to mix banked blood with the prime (calcium - citrate - dextrose) until the initiation of bypass if an appropriate recirculation system for sanguineous perfusate is not available.

The second case characterizes the effects of ineffective communication. It is indeed the responsibility of the perfusionist to require and to assure that effective flow of information is continuously maintained within the triangle: anesthesiologist—surgeon—perfusionist, during sequential phases of cardiac surgery and cardiopulmonary bypass. In fact, upon surgeon's request, the anesthesiologist announces, loud and clear, "PROTAMINE IN". Precisely at that moment, all sucker pumps stop IRREVOCABLY. A small amount of protaminized blood introduced with a sucker to the CPB circuit exposed to air, oxygen and biomaterials, suffices to initiate rapid clotting. In such event, appropriate measures should be taken by the perfusionist to insure safe and adequate perfusion in case reinstitution of bypass is suspected.

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