BLEEDING FOLLOWING DEEP HYPOTHERMIA AND CIRCULATORY ARREST IN CHILDREN

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Deep hypothermic circulatory arrest (DHCA) is a technique of extracorporeal circulation commonly used in children with complex congenital heart defects undergoing surgical repairs. The use of profound cooling (20°C) and complete cessation of circulation allow adequate exposure and correction of these complex lesions, with enhanced cerebral protection. However, the profound physiologic state of DHCA results in significant derangement of the coagulation system and a high incidence of postoperative bleeding. This review examines the impact of DHCA on bleeding and transfusion requirements in children and the pathophysiology of DHCA-induced platelet dysfunction. It also focuses on possible pharmacologic interventions to decrease bleeding following DHCA in children.