Conservative methods in PPH: Uterine blood supply and hemostatic procedures

Jose M. Palacios Jaraquemada

Buenos Aires, Argentina

The use of hemostatic procedures promotes uterine conservation in the presence of different types of obstetric hemorrhage. However, its correct application depends mainly on prior knowledge of uterine irrigation and of its topographic distribution. There are two clearly defined vascular regions in the uterus: one which comprises the uterine body, named S1, and another which includes the lower segment, uterine cervix and upper portion of the vagina, S2. Vascular distribution delimits both anatomical areas. S1 is irrigated by the uterine arteries as well as by collateral branches of the ovarian and superior vesical arteries. On the other hand, S2 is irrigated by pelvisubperitoneal collateral branches of the internal pudendal artery and, to a lesser extent, by accessory vessels of the internal iliac, uterine and lower vesical arteries. Topographic knowledge of the bleeding is deemed essential when selecting a procedure. Even though most hemostatic techniques have been designed for the hemostatic control of S1, a number of them can be applied to S2 with certain limitations. The main technical restriction in S2 is the inadequate exposure of the pelvisubperitoneal space, a fact that limits its safe and efficient application. As it occurs with other uterine hemostatic methods, the appearance of coagulopathy or of uncontrolled shock reduces its efficacy significantly. In these cases, the use of simple, universal and efficient methods has made it possible to have enough time to revert the hemostatic and hemodynamic imbalances almost without bleeding.