

Anatomy of the human uterus vascular supply with respect to uterus transplantation

Abstract

This dissertation thesis deals with the blood supply of the human uterus and its relevance to uterus transplantation. The first section summarizes what is commonly known of the anatomy of the arterial and venous uterine blood supply including collaterals. It also quotes a few classical anatomical texts, illustrates the transplantation technique, and the pros and cons of utilizing uterine grafts from living and deceased donors. The second section deals with nine publications, the first of which aimed to verify the existence of ipsilateral and contralateral arterial anastomoses. Both types were verified in all specimens (9/9). The second publication analysed two cases of graft thrombosis. The first was brought about through narrowing of the uterine artery, while the other was caused by compression from hematoma. Thrombectomy was unsuccessful in both cases. The third publication compared the utility of CT to that of MR angiography for evaluating uterine vessel quality. These two methods are complementary. The study presents a new radiological classification system suggested to assess uterine vessels. Another publication reports the interim results of a Czech uterus transplant study. Another study presents a uterus transplant recipient who suffered from acute appendicitis. Another study reports the first published live birth from a deceased donor nulliparous uterine transplant. Another study determined the ratio of deceased donors to women suffering from uterine agenesis. Their findings disclosed a surplus of women with uterine agenesis at a ratio of 107:1. Another study looked at how immunosuppression affects renal function in uterus recipients and observed signs of impairment. A graft hysterectomy and cessation of immunosuppression did not lead to full restoration of renal function.

Keywords

Anatomy, blood supply, collateral circulation, graft thrombosis, uterine transplantation, uterus