Correspondence

Prophylactic abdominal aorta balloon occlusion during cesarean section

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We read with interest the editorial by Heidemann[1] and article by Xin Wei et al.[2] regarding radiological intervention in abnormally invasive placenta (AIP). We strongly believe that in this instance maternal risks, such as lower limb ischemia, renal failure from renal artery occlusion, unknown consequences of radiation exposure and significant increase in arterial pressure associated with prophylactic abdominal aortic balloon occlusion (PABO), outweigh the benefits of reduced blood loss and fertility sparing in electively-managed AIP cases in a tertiary care hospital with adequate resources.

We concur there has been a resurgence in endovascular surgical techniques, yet intra-aortic balloon occlusion is not a novel concept and dates back to 1952.[3] Prophylactic abdominal aortic balloon occlusion or resuscitative endovascular balloon occlusion of the aorta (REBOA) is an invasive technique; the latter advocated for use in a crisis capacity for management of hemorrhage from a non-compressive torso injury. Predominantly performed by trauma or vascular surgeons, REBOA is and is not without major complications such as arterial pseudoaneurysm and distal embolic events.[4] Saito et al.[5] identified 24 out of 5230 patients admitted to a trauma center who would benefit from REBOA; 10 patients died from other injuries; however, from the 14 survivors, three (12.5%) had REBOA complications, one with external iliac artery injury and two with lower limb ischemia, in which lower limb amputation was necessary in all cases. Acute kidney injury developed in all three cases, but failure was not persistent. The authors concluded “the serious complication of lower limb ischemia warranted more research on the safety of REBOA.” It is also advocated that the decision to use REBOA in a trauma setting should be part of a robust clinical governance framework to ensure both high-quality patient care and the ability to make valid observations and/or comparisons about the effectiveness of this therapy.[6]

In light of these serious morbidities, as well as those reported by Xin Wei,[2] current obstetric indications for PABO, i.e. anticipation of a major hemorrhage and fertility sparing, are, we believe, sub-optimal. Our AIP institutional data over the past three years (n=35) show that surgical blood loss lies within manageable limits and fertility sparing in women with more than one offspring after counseling is not a major patient concern. Anesthetic practice at our institution