

Abstract

Background: Acute limb ischemia (ALI) carries significant overall morbidity and mortality.

Pregnant and postpartum women are physiologically hypercoagulable, but little is known about the impact of ALI in this cohort of patients. The goal of this systematic review was to gather available data on diagnosis and treatment of ALI during pregnancy and the postpartum period.

Methods: A systematic review of studies on patients with ALI during pregnancy and puerperium was performed following the PRISMA guidelines. Three databases including Pubmed Medline, EMBASE, and Cochrane library were queried. Manuscripts, which provided data on diagnosis and treatment of ALI in pregnant and postpartum patients, were included regardless of language or study design. Outcomes of interest included type of treatment for ALI (open and endovascular), morbidity and mortality.

Results: Fourteen manuscripts out of 6,222 references were included with a total of 14 patients. The median age of patients was 31.5 years. Embolism was the slightly more common etiology than thrombosis, present in 8 (57%) patients. All patients had a pregnancy complication or concomitant medical condition which might have predisposed to arterial occlusion either directly or indirectly by leading to iatrogenic arterial injury, with peripartum cardiomyopathy being the most common and occurring in 6 (43%) patients. Open surgery was the preferred treatment option in 11 (79%) patients followed by anticoagulation alone. No endovascular procedures were described. One patient underwent major amputation on presentation and an additional patient required major amputation for recurrent ALI. No deaths occurred. Twelve (86%) patients had complete recovery with no other ALI-associated sequelae.

Conclusions: ALI is rare in pregnant and postpartum women despite their transient physiologic hypercoagulability and is almost uniformly associated with pregnancy complications. Open surgical revascularization or anticoagulation alone appears to have acceptable outcomes as the majority of patients present with embolism or thrombosis without underlying systemic arterial disease.

Keywords: acute limb ischemia, pregnancy, postpartum, endovascular, open revascularization