# A Case Of Severe Aortocaval Compression Syndrome In Pregnancy

## Background

Aorta-caval compression syndrome is a result of the physiological compression of inferior vena cava from the gravid uterus when laying supine. Compression lowers the venous return which causes a decrease in blood pressure and reflex tachycardia. If not corrected in time, it can result in inadequate fetal circulation as the utero-placental circulation directly relates to the maternal circulation. Most patients are asymptomatic and quick to recover with a left lateral tilt.

## Aims

Discuss an interesting case of a severe aortocaval compression syndrome in pregnancy.

## Case

A 29-year-old unbooked primigravida presented to our tertiary centre at 24 weeks with a 3-week history of a myriad of symptoms. The symptoms included diarrhoea, vomiting, headache, neck stiffness, lower back pain, and pre-syncopal episodes. Her medical history was significant for gastric banding and multiple abdominoplasty surgery. She was repeatedly found to be tachycardia (up to 170 bpm) and severely hypotensive (down to systolic of 70mmHg) which required several ICU admission for vasopressor support.

Despite extensive multidisciplinary investigation, no alternative cause was identified. She was diagnosed with aortocaval compression syndrome, likely secondary to extensive prior abdominoplasty. Symptoms were managed on metoprolol, fludrocortisone and analgesia. Fetal surveillance remained reassuring, and she was discharged at 28 weeks with multidisciplinary outpatient follow-up involving obstetric medicine, maternal-fetal medicine, and endocrinology

The patient was consented for IOL by 38 weeks on maternal grounds however she spontaneously ruptured her membranes at 37+5 weeks. Due to failed IOL, she required an emergency caesarean section. The c-section was uncomplicated a healthy baby girl was delivered. The post-partum stay was uncomplicated, and she was discharged on day 3. The patient was reviewed by the obstetric medicine team 3-months post-partum and was doing well.

## Results

Extensive work-up to determine the cause of her symptoms were completed, which were all normal. This included:

- Non-contrast CT brain
- MRI whole spine
- US abdomen, US aortic doppler, US doppler both lower legs
- Echo
- Serology including autoimmune serology and nutritional screen

## Discussion

This case demonstrates that severe symptomatic aortocaval syndrome can arise from an otherwise physiological anatomical change of pregnancy and may present a significant diagnostic challenge.

Early multidisciplinary involvement, including obstetric medicine, maternal–fetal medicine, radiology, anesthetics, endocrinology, and plastic surgery, was integral to establishing the diagnosis, anticipating potential complications, and coordinating an individualized management plan.

This case highlights the importance of considering aortocaval syndrome in the differential diagnosis of unexplained maternal symptoms and reinforces the value of coordinated multidisciplinary care in optimizing maternal and fetal outcomes in complex obstetric patients.

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