

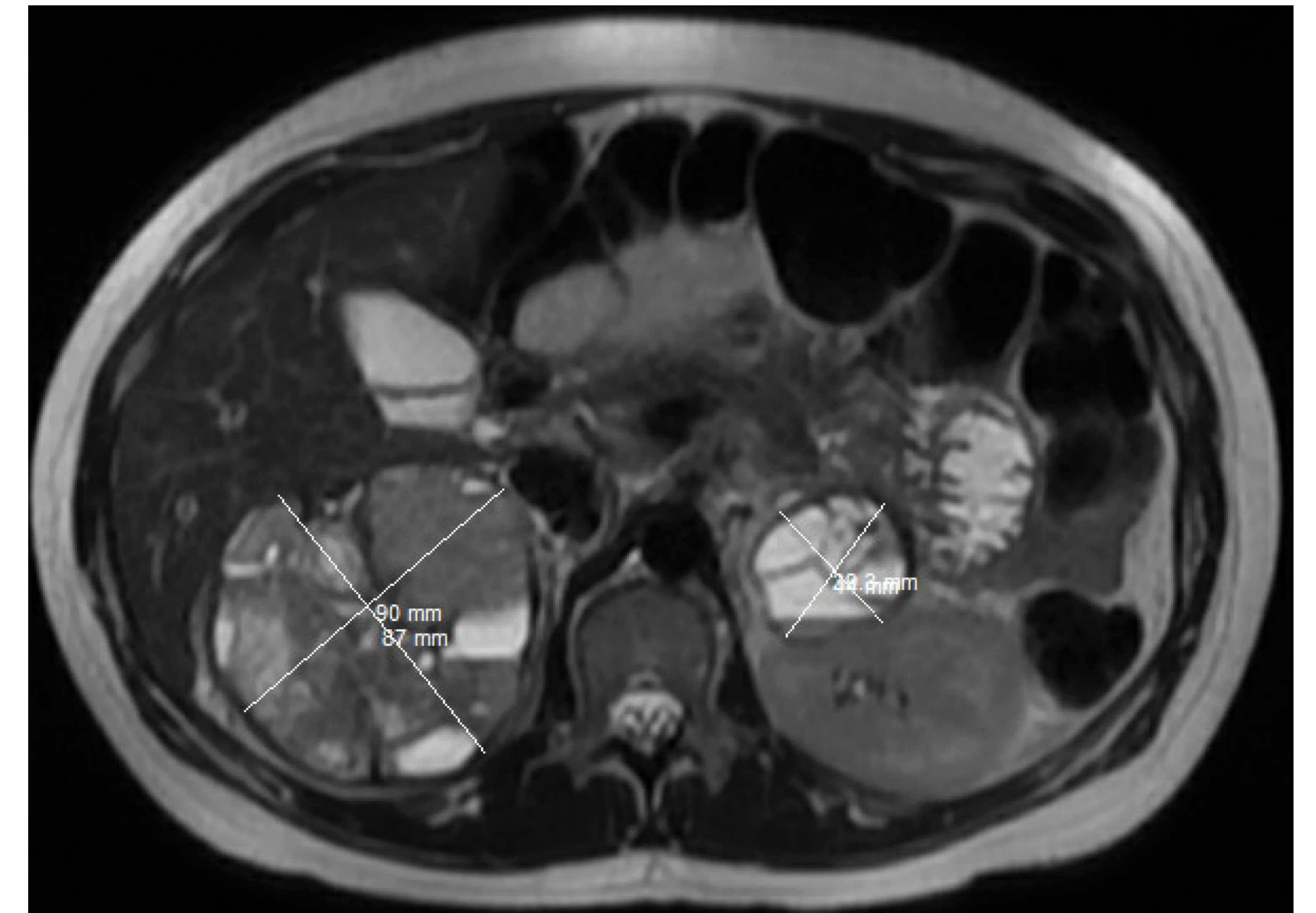
Cesarean Delivery in a Parturient with Bilateral Pheochromocytoma Complicated by Left Ventricular Outflow Tract Obstruction: A Case Report

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Background

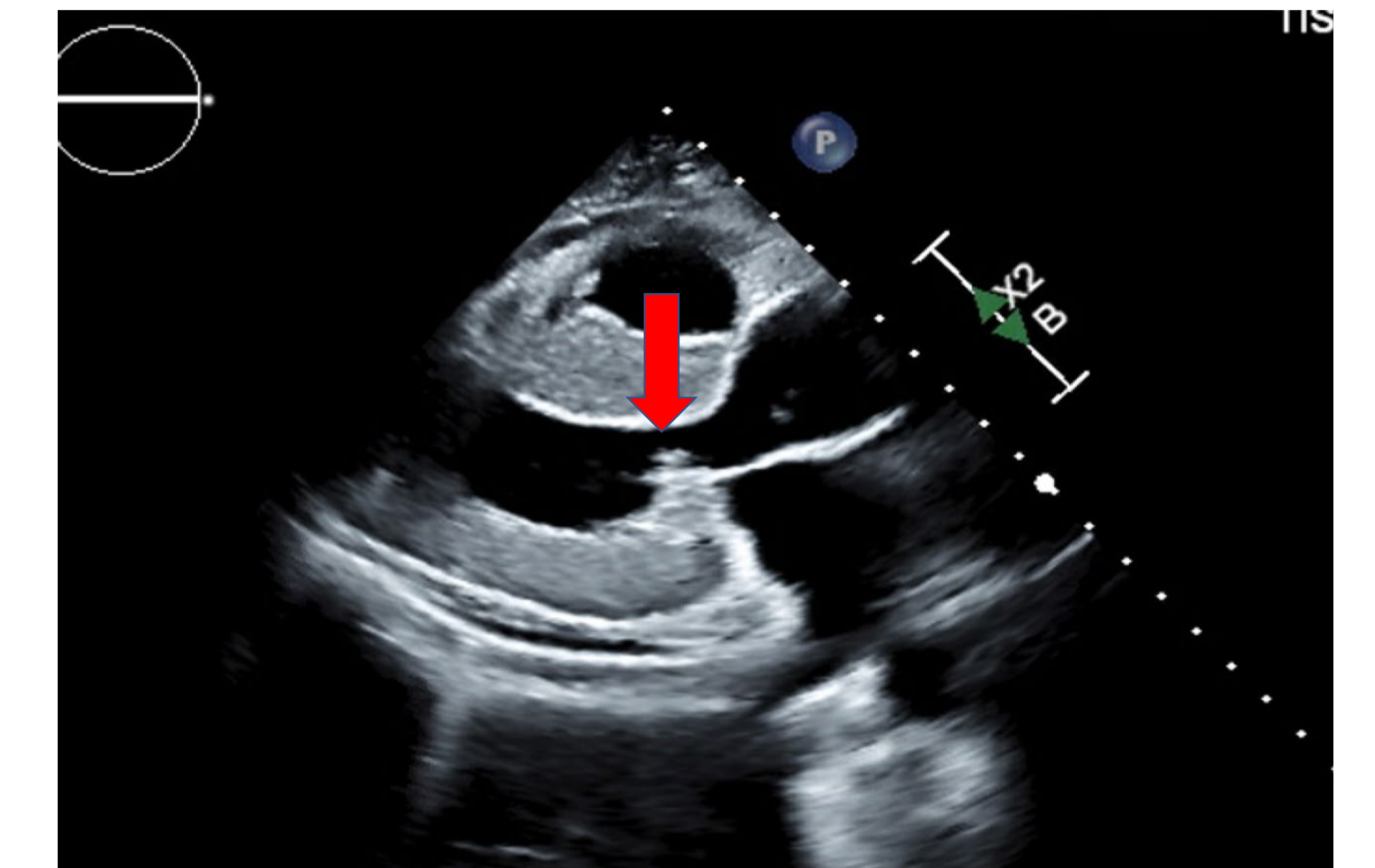
- Pheochromocytoma is a rare endocrine tumor in pregnancy
 - 1 per 15,000 to 1 per 54,000 deliveries¹
- Tumor vascularity increases in pregnancy predisposing patients to hypertensive crisis²
- Untreated cases may cause cardiomyopathies from excessive catecholamine-induced stimulation of cardiac myocytes
- If untreated maternal and fetal mortality ~40-50%¹



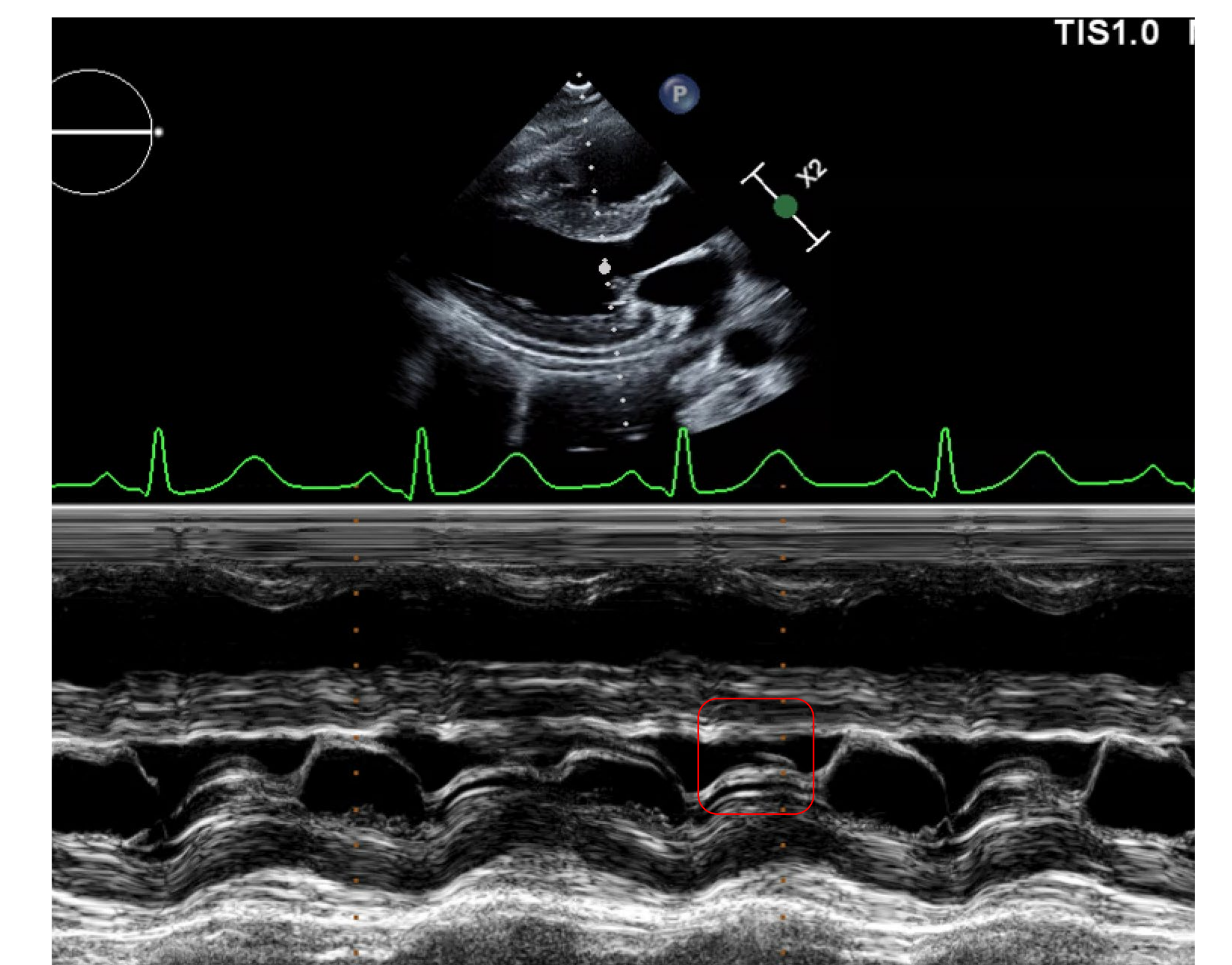
MRI of abdomen showing B/L adrenal mass

Case Presentation

- 29year-old G1P0 at 27 weeks gestation with gestational diabetes presenting with hypertension and tachycardia
- CT PE with bilateral adrenal masses concerning for pheochromocytoma
- Diagnosis confirmed with elevated normetanepherines and plasma metanephrines
- Endorsed longstanding history of syncope and tachycardia
- TTE:
 - LVOT obstruction: peak gradient 69mmhg
 - Systolic anterior motion of mitral valve
 - Moderate concentric LVH
 - EF 75%
- IVF repletion, beta blockade and alpha blockade initiated
- Preterm labor at 32 weeks gestation necessitating urgent cesarean delivery
- **Anesthetic management:** preinduction arterial line, uncomplicated dural puncture epidural with crystalloid coload, prophylactic phenylephrine administration
- 6 weeks postpartum TTE without evidence of LVOT and SAM
- 8 weeks postpartum underwent laparoscopic tumor resection



Narrowing of LVOT during systole.



Systolic anterior motion of mitral valve in M Mode.



Discussion

- Broad differential for hypertension in pregnancy
- Physiology of pregnancy can make adequate beta and alpha blockade challenging given concern for uteroplacental insufficiency
- Essential to rule out any cardiomyopathies preoperatively
- Associated LVOT obstruction can complicate hemodynamic goals
- Hypertensive crisis from tumor manipulation during surgery or during pregnancy can cause fixed LVOT obstruction due to increased heart rate
- Excessive alpha blockade can cause orthostatic hypotension worsening LVOT obstruction

References

1. Lenders, JWM. Endocrinol Metab Clin North Am 2019; 48: 605-17.
2. Zhang R. Int J Cardiol 2017; 249:319-23.