



# Successful pregnancy in patient with GH secreting pituitary adenoma

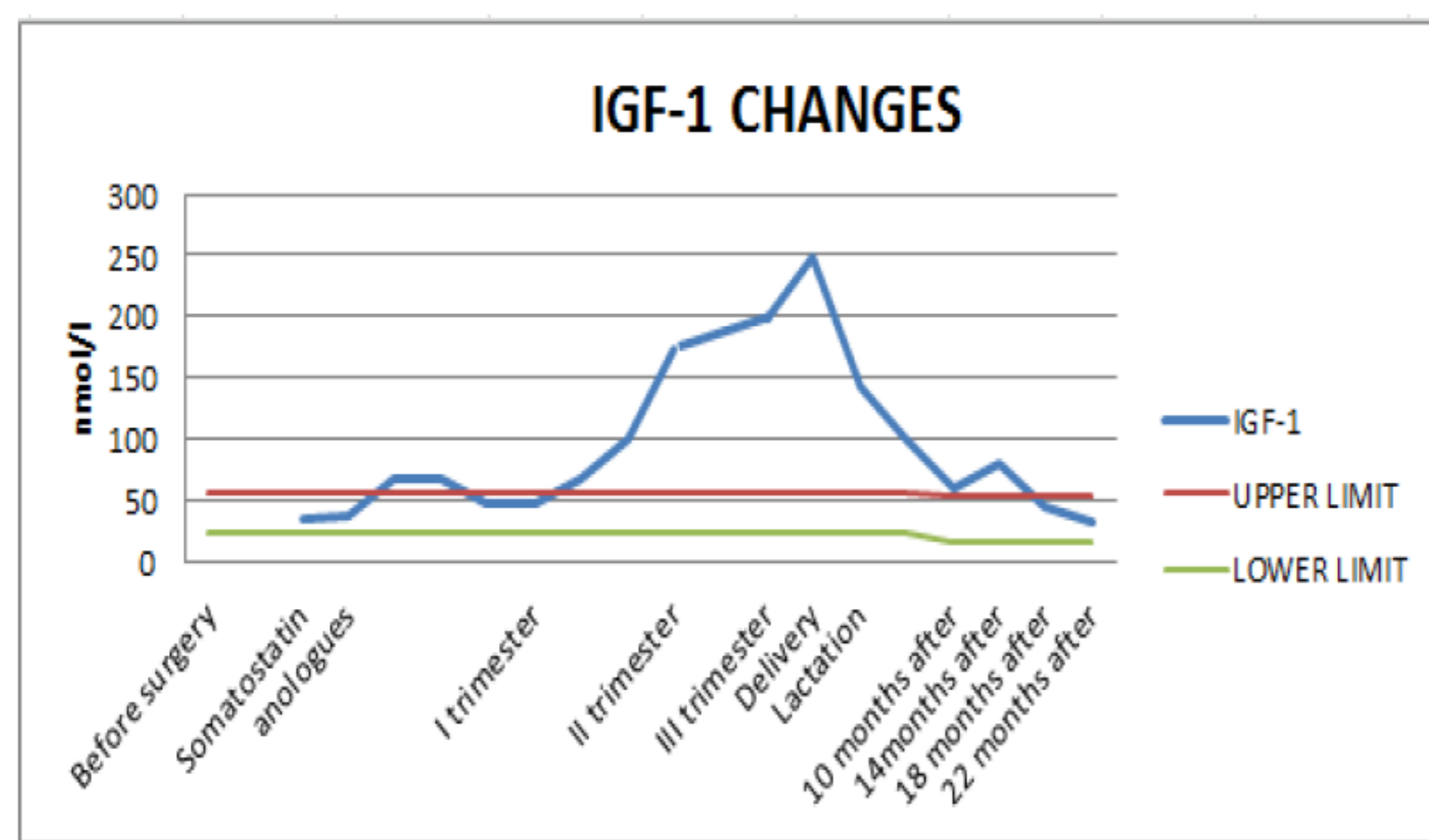
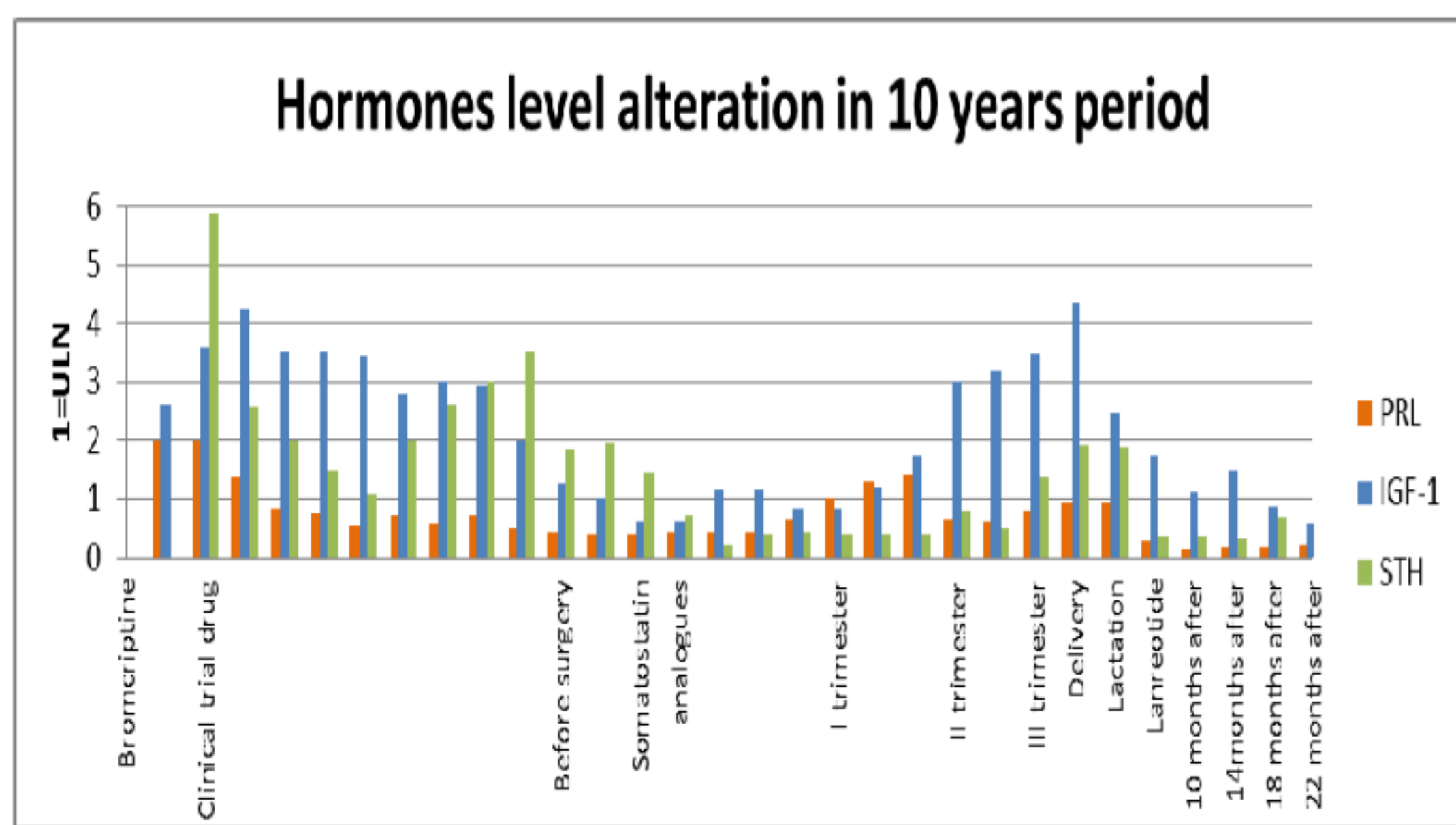


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## INTRODUCTION

GH producing pituitary adenomas are associated with infertility. We present the first case in Lithuania, when acromegalic patient got pregnant and delivered.



## DISCUSSION

Pregnancy case in acromegalic patient with poor GH and IGF-1 secretion control is reported. This is the first such case of pregnancy and successful delivery in our hospital.

GH producing pituitary adenoma, especially macroadenoma, may increase in size during pregnancy, but this was not a case for our patient.

Majority of described treatment cases of pregnant acromegalic patients, during last decade, are related to other medications than Lanreotide. In our case the patient was exposed to Lanreotide during first 6 weeks of pregnancy.

## References

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## CASE PRESENTATION

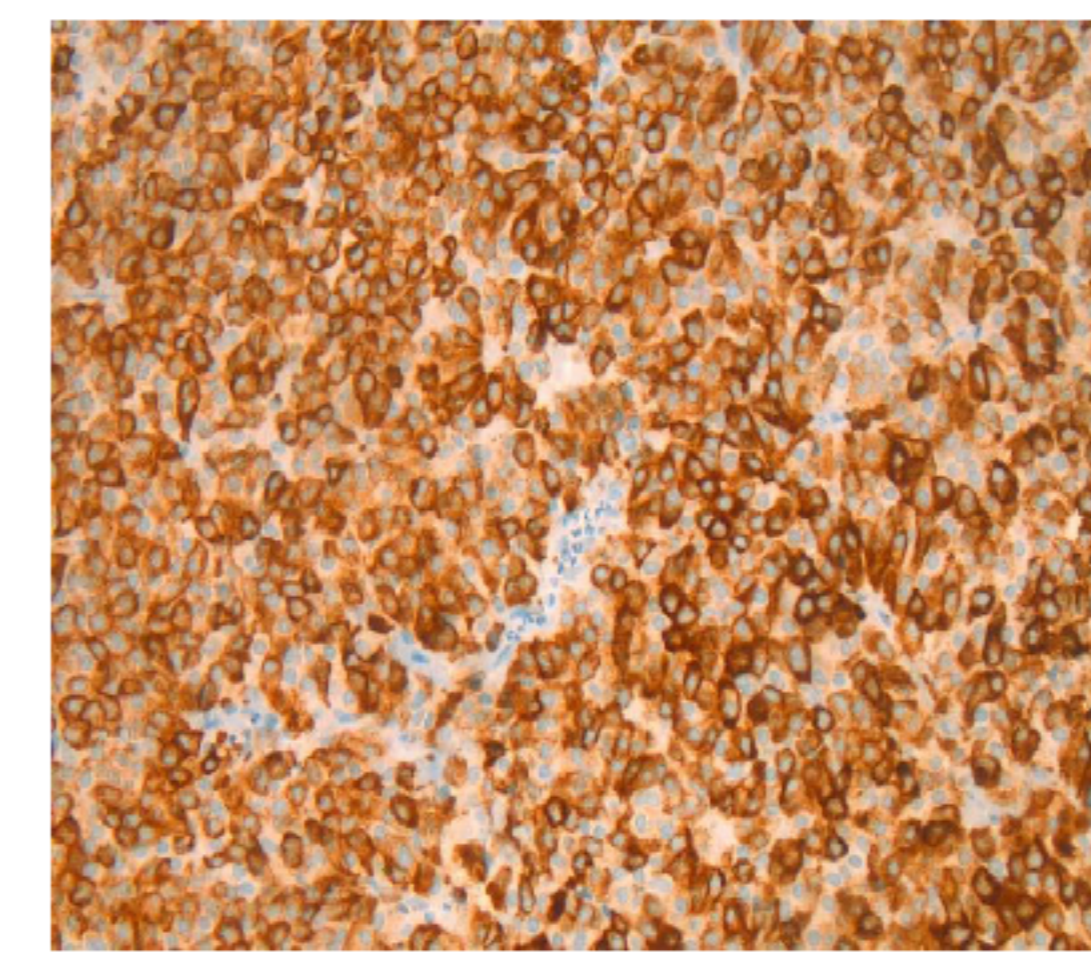
33 year-old woman visited endocrinologist complaining of secondary amenorrhoea. Due to elevated prolactin – 998 mU/l (ULN 380 mU/l), bromocriptine treatment was started. The patient discontinued treatment after 3 months because of restoration of regular menstrual cycle and dropped out from follow-up. Four years later the patient visited our hospital having complaints of typical acromegaly symptoms. Her IGF-1 was 150.7 nmol/l (x3 ULN). Pituitary MRI disclosed a macroadenoma 1.6x1.2x0.6 cm. Total macroadenoma's removal was not possible, because of invasion into left cavernous sinus, there was no visual impairment, so the patient was enrolled into the III phase clinical trial and treated with subcutaneous injections of study drug (dopamine-somatostatin chimeric molecule). Due to insufficient effect, treatment was discontinued. One month later IGF-1 was 846.9 ng/ml (x3.4 ULN). Transsphenoidal resection of adenoma was performed, pathological examination confirmed GH and TSH  $\alpha$ -subunit positive secreting cells, staining for PRL was negative. 3 months after surgery treatment with somatostatin analogues was started due to GH and IGF-1 hypersecretion and continued for 280 days. The last three injections was Lanreotide 120 mg every 56 days. When patient came for fourth Lanreotide dose, she was pregnant for 6 weeks and treatment was discontinued. Last recorded IGF-1 before pregnancy was 67.2 nmol/l (ULN 50.2 nmol/l). Normal fetal growth and development was observed, with no maternal complications. The patient delivered a full-term 4060g weight, 52cm height newborn, APGAR 9-10 points by cesarean section. Lanreotide therapy was restarted in 3 months. Seven months after delivery MRI scans disclosed reduced adenoma size, hormone levels decreased as well.

## CONCLUSIONS

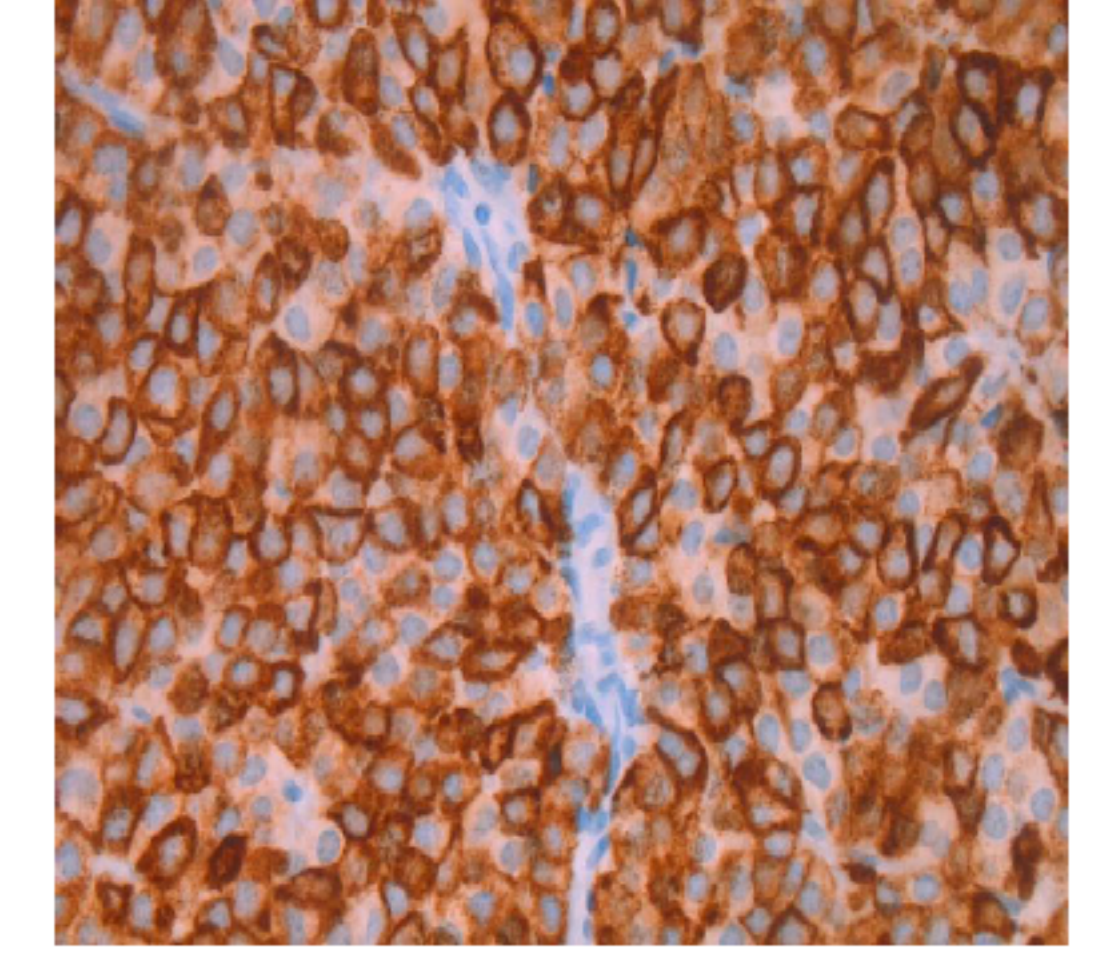
We present case of pregnancy in patient with GH secreting adenoma recurrence. There are only a few pregnancy cases reported when using Lanreotide to control GH secretion in acromegalic patients. Although Lanreotide is assigned to category C by FDA, no pregnancy complications were observed in our case.



Seven months postpartum MRI represents 0.5x0.9x0.8 cm tumor masses on the left pituitary side with invasion into left sphenoid sinus



Positive immunohistochemical staining for GH x400



Positive immunohistochemical staining for  $\alpha$ -subunit TSH x400

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