The share of hypogonadotropic hypogonadism (HH) among other causes of female infertility accounts for about 5%, which includes isolated HH, and followed by other forms of pituitary insufficiency. In 2012 we consulted a 30 years old woman with fertility difficulties. At the age of 20 she appealed for medical assistance due to headaches and visual impairment, on further examination an endo-suprasellar tumor was detected. Transcranial operation was performed but diagnosis due to histology wasn't clear. After surgery she suffered from hypopituitarism (HH, hypothyrodisim, adrenal insufficiency, diabetes insipidus) for which she received replacement therapy. In 2012 she was consulted by neurosurgeons, endocrinologists and morphologists again where unmunohistohemical and histological studies of the tumor were conducted. Lymphocytic (pseudotumor-like) hypophysit was diagnosed. Treatment of infertility started with high-dose estrogen-progesterone therapy for 6 months, due to uterus has increased from 21 ml to 26 ml. Ovulation induction protocol with human menopausal gonadotropin (total dose - 2850 IU) was initiated on the 2nd day of bleeding and lasted 14 days. During retrieval from 40 follicles (15-19mm) only 10 oocytes (M II) were obtained. On the 5th day there were 4 blastocyst. As a result of embryo transfer the uterine pregnancy with a single fetus was achieved. We observe the clinical situation and pregnancy up until now (15 week on Sept.2013). She is receiving l-thyroxin, desmopressin, hydrocortisone, estrogen, progesterone. In sum, patients with HH have a long duration of ovulation induction, high doses of gonadotopins and small amount of oocytes from leading follicles than patients with normal pituitary function. Therefore it is important to carry out an adequate replacement therapy of all kinds of deficiency before IVF procedure, during stimulation and pregnancy.