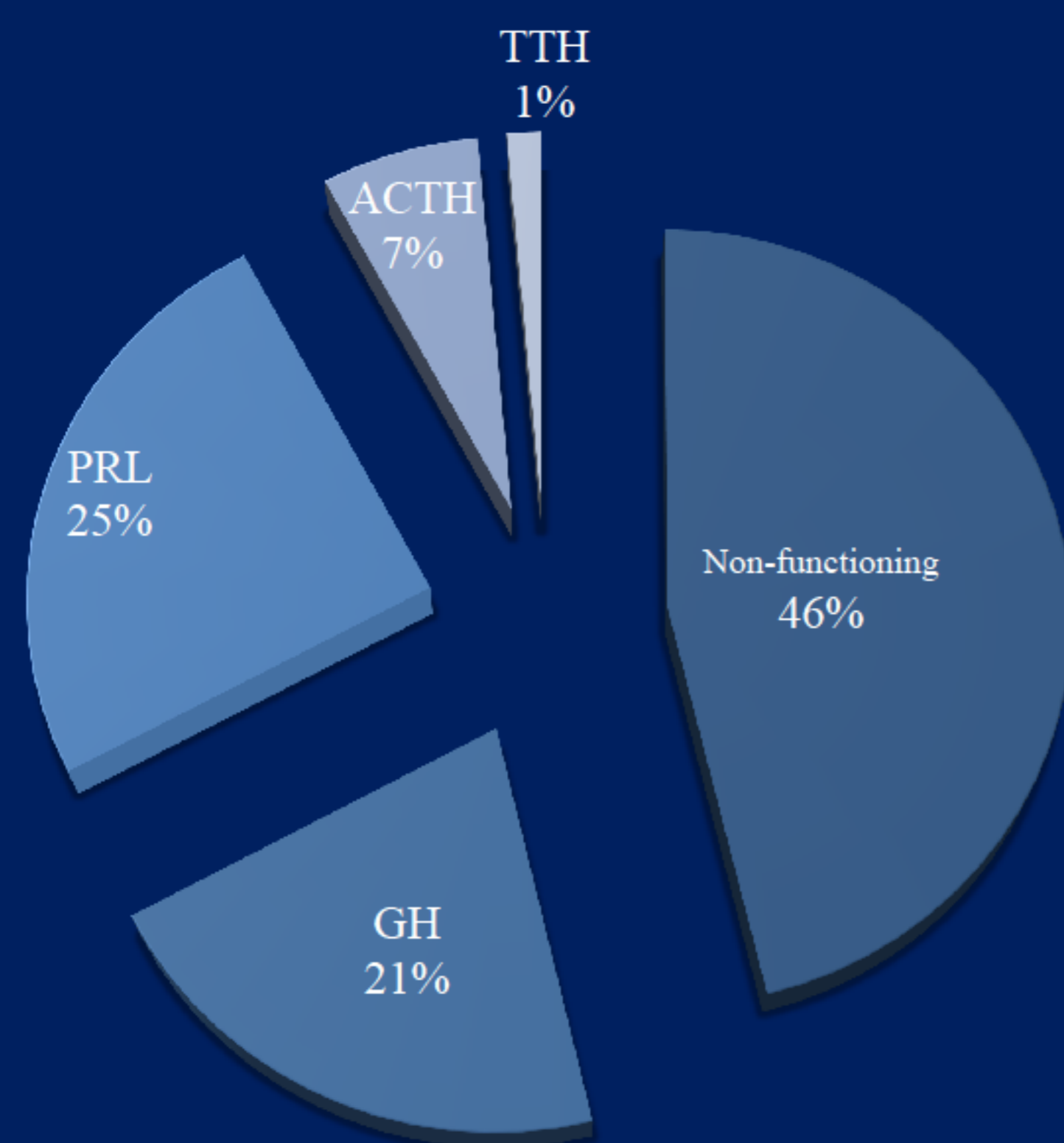


Introduction. The number of studies on the incidence and outcomes of surgical treatment for pituitary adenomas is still limited, despite that pituitary tumours are one of the most frequent intracranial tumours.

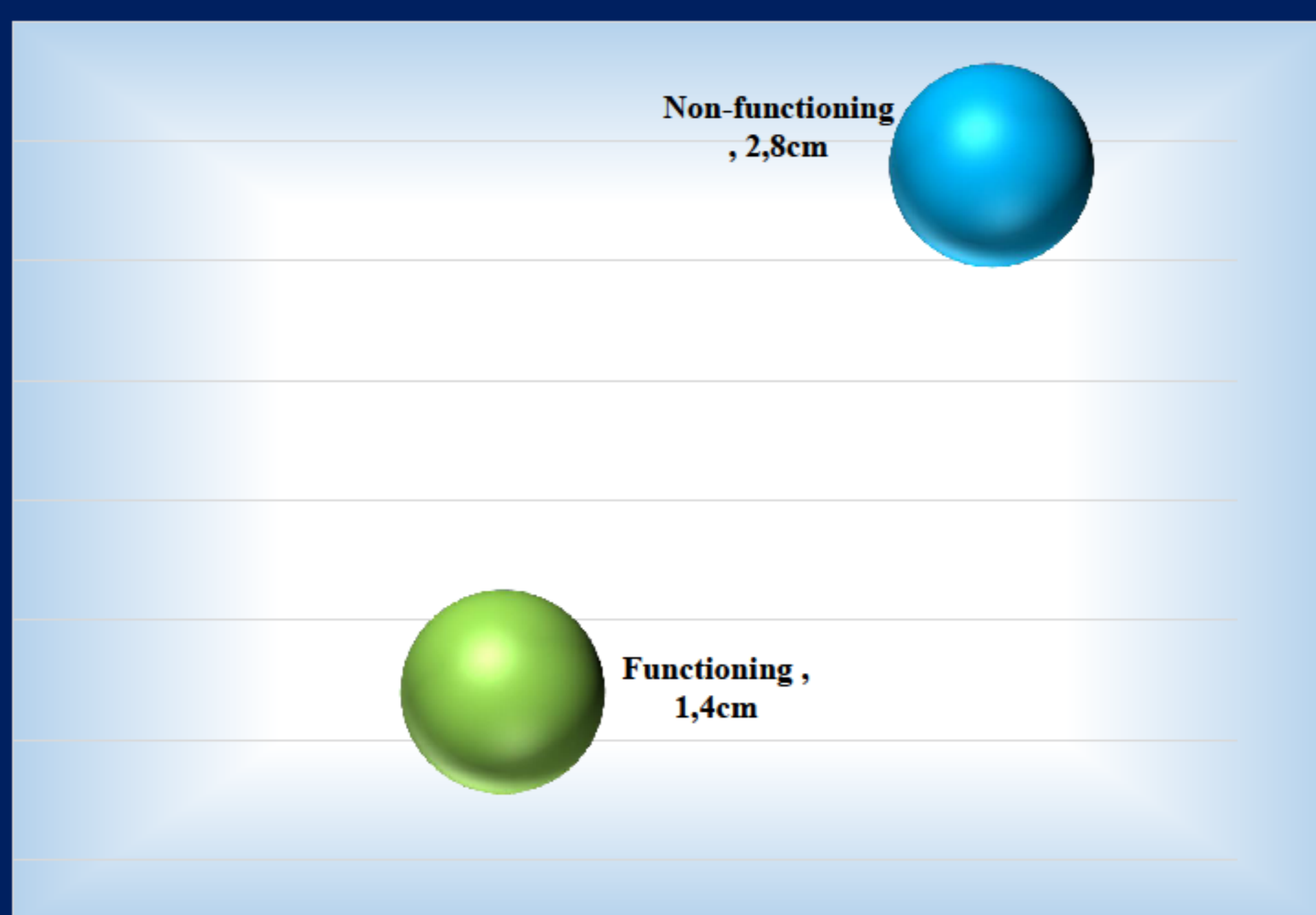
The aim of the study. To evaluate clinical features of transsphenoidally operated pituitary adenomas (PA) and perioperative results of the treatment.

Materials and methods. This is a retrospective single institution study of 491 patients. Data were collected from medical records of patients operated during the period 1995-2014 at the Hospital of Lithuanian University of Health Sciences due to functioning and non-functioning micro or macroadenomas. The series consisted of 319 (64.91%) female and 172 (35.09%) male patients, with a mean age of 49.95±16.04 year (range 18-85 year).

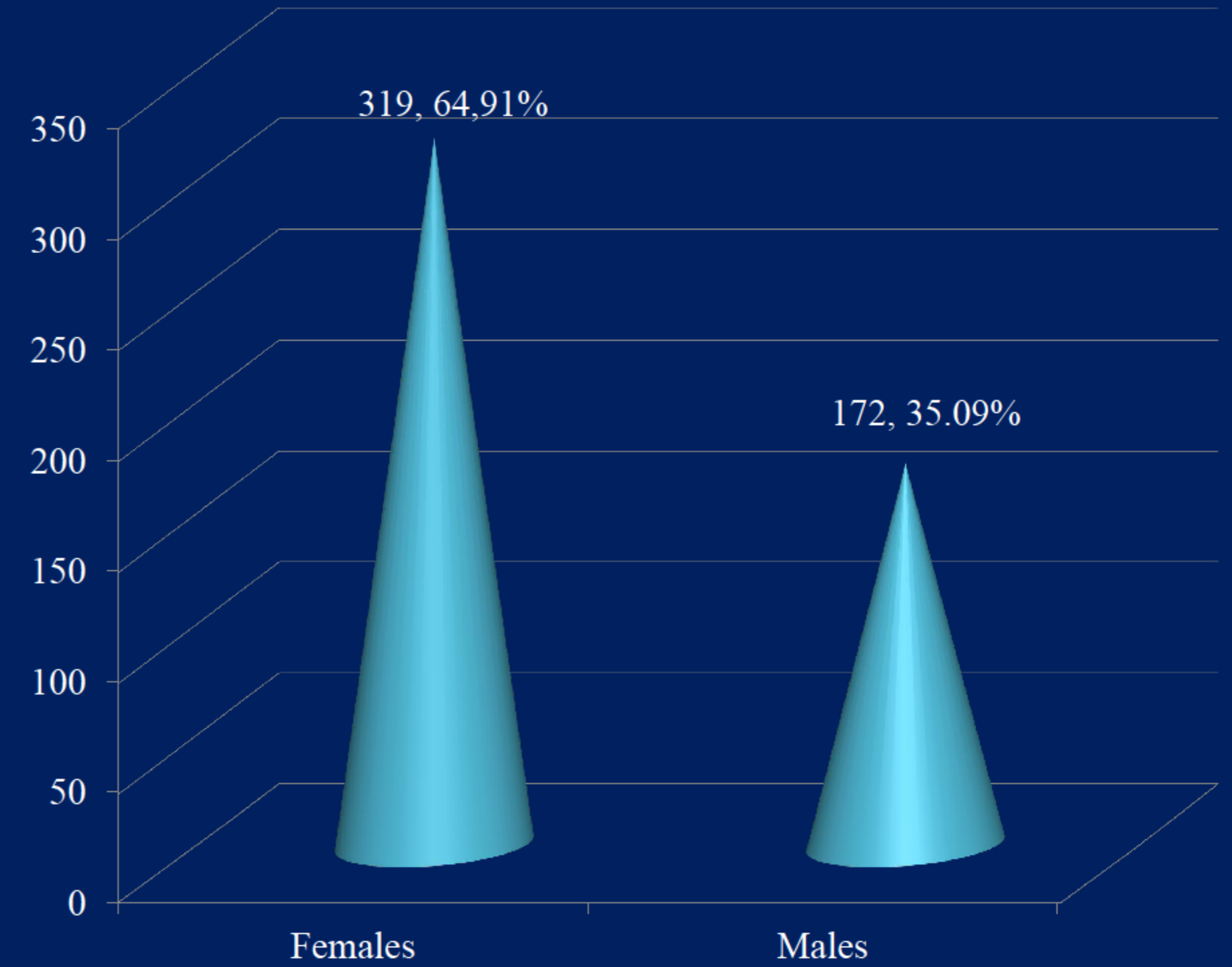
Results. The study included 227 non-functioning and 264 functioning adenomas: 103 were growth hormone (GH), 122 prolactin (PRL), 32 adrenocorticotrophic (ACTH) and 7 thyroid-stimulating hormone (TSH) secreting adenomas. Female patients were significantly younger than male patients ($p < 0.02$). Gross total resection as ascertained by surgeon just after the operation was achieved in 92 (40.71%) cases of non-functioning adenomas, 62 (64.58%) cases of GH, 64 (55.17%) cases of PRL, 24 (85.71%) cases of ACTH, and 3 (42.86%) cases of TSH secreting adenomas. According to the size the non-functioning tumours were significantly larger than functioning adenomas. Tumour type and size directly influenced surgical outcome. The highest possibility for total tumour removal was detected in the case of ACTH secreting adenomas ($p < 0.001$) and lowest in non-functioning adenomas ($p < 0.001$). Surgical intraoperative rupture of membrane of selle turcique and liquorrhea occurred in 16.51% and no major intraoperative complications were observed.



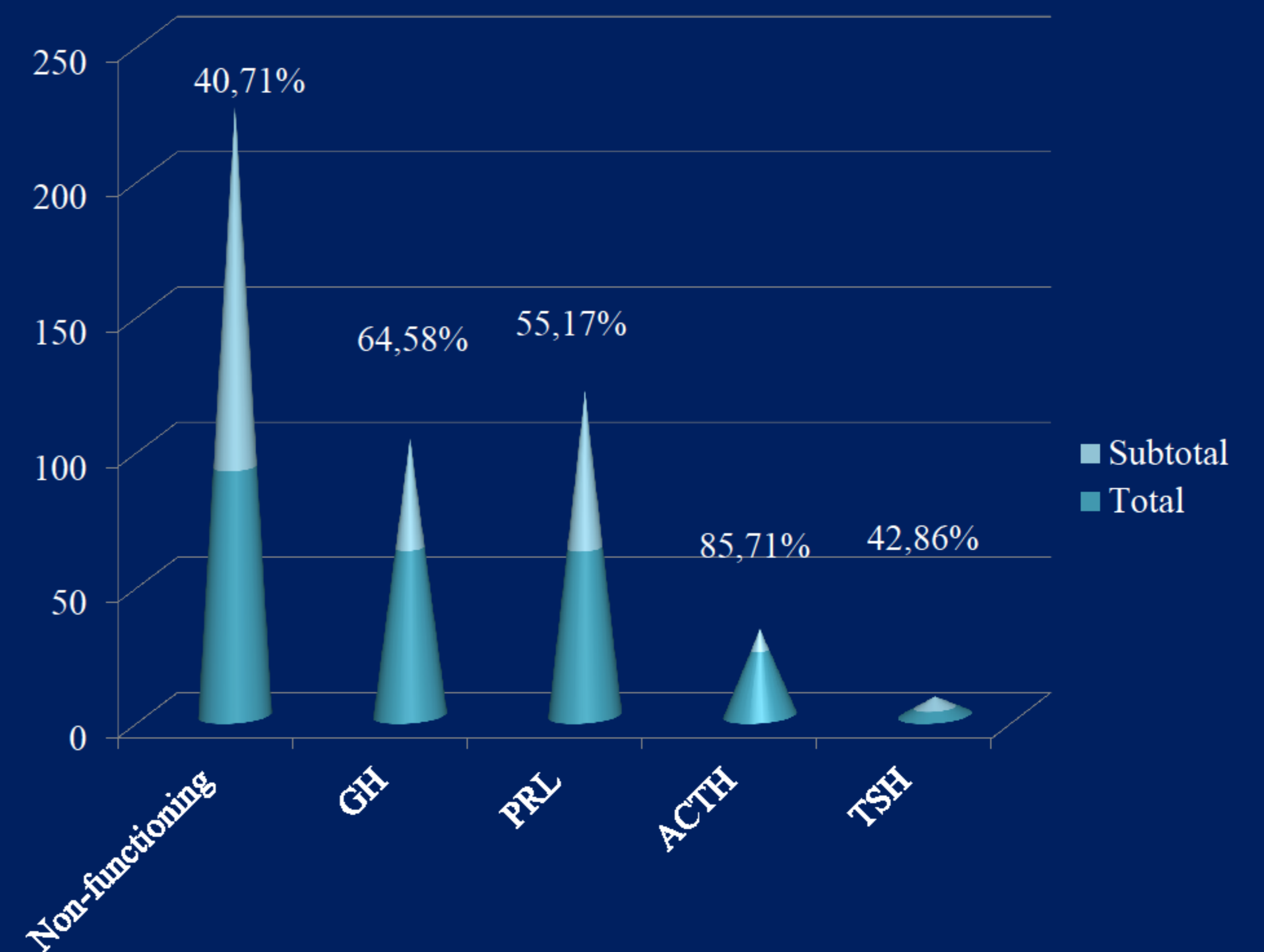
3 Figure. Non-functioning and functioning adenomas.



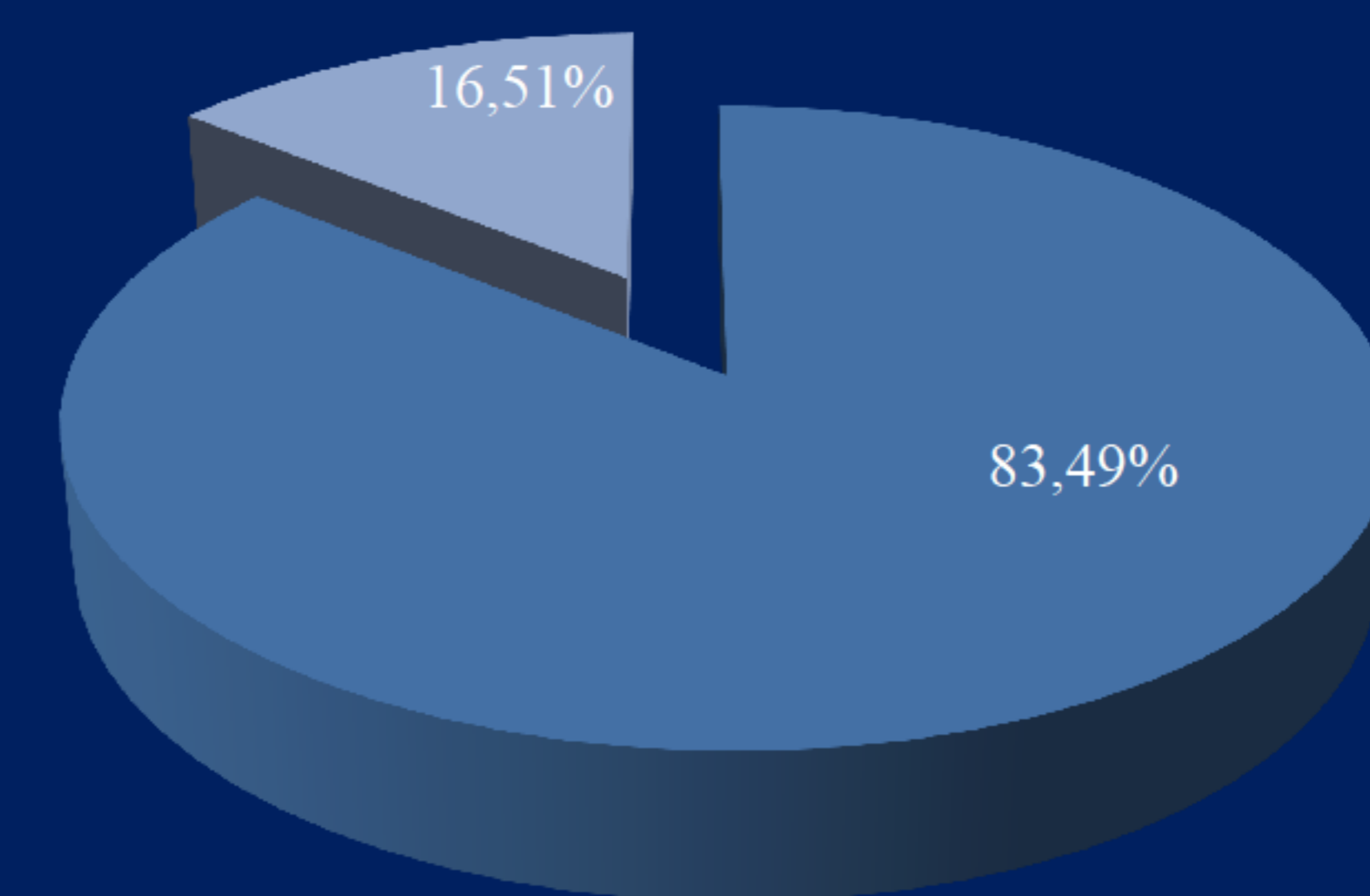
5 Figure. Non-functioning tumours were significantly larger than functioning adenomas.



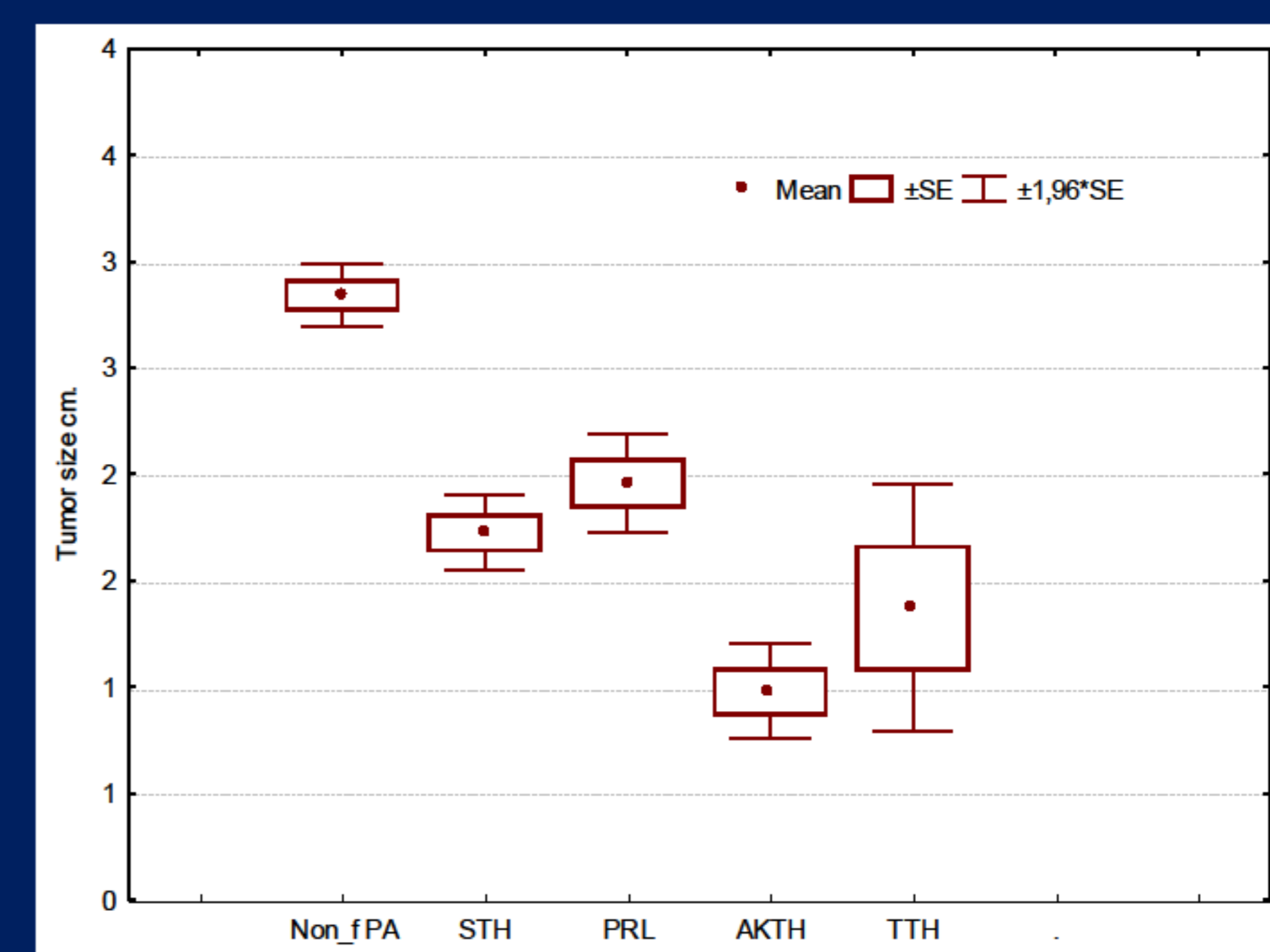
1 Figure. Patients distribution according gender.



2 Figure. Gross total resection as ascertained by surgeon after the operation.



4 Figure. Surgical intraoperative rupture of membrane of selle turcique and liquorrhea occurred in 16.51%.



6 Figure. Tumor type and size features.

Conclusions. Our centre data confirm effectiveness and safety of transsphenoidal surgery for PA and the best prognosis for ACTH secreting PA.

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