



FNAB AND BETHESDA CLASSIFICATION IN THE TUMOURS OF THE THYROID GLAND – A RETROSPECTIVE STUDY

Kubec V., Sebera O., Slouka D.

Dpt. of Otorhinolaryngology, Faculty of Medicine in Pilsen, University Hospital Pilsen, Charles University, Czech Republic

SUMMARY

Thyroid nodule is a pathology with a prevalence of 19 - 68 % of the population, with a thyroid gland carcinoma proven in 7 – 15 % of these cases. Bethesda classification is a standardized system for cytology findings evaluation.

AIM OF THE WORK

The aim of our work was to compare predicted preoperative diagnosis including Bethesda classification and the final histology result, to define malignancy risk for Bethesda categories and to compare our findings with foreign studies.

MATERIALS AND METHODS

A retrospective, observational, analytic study.

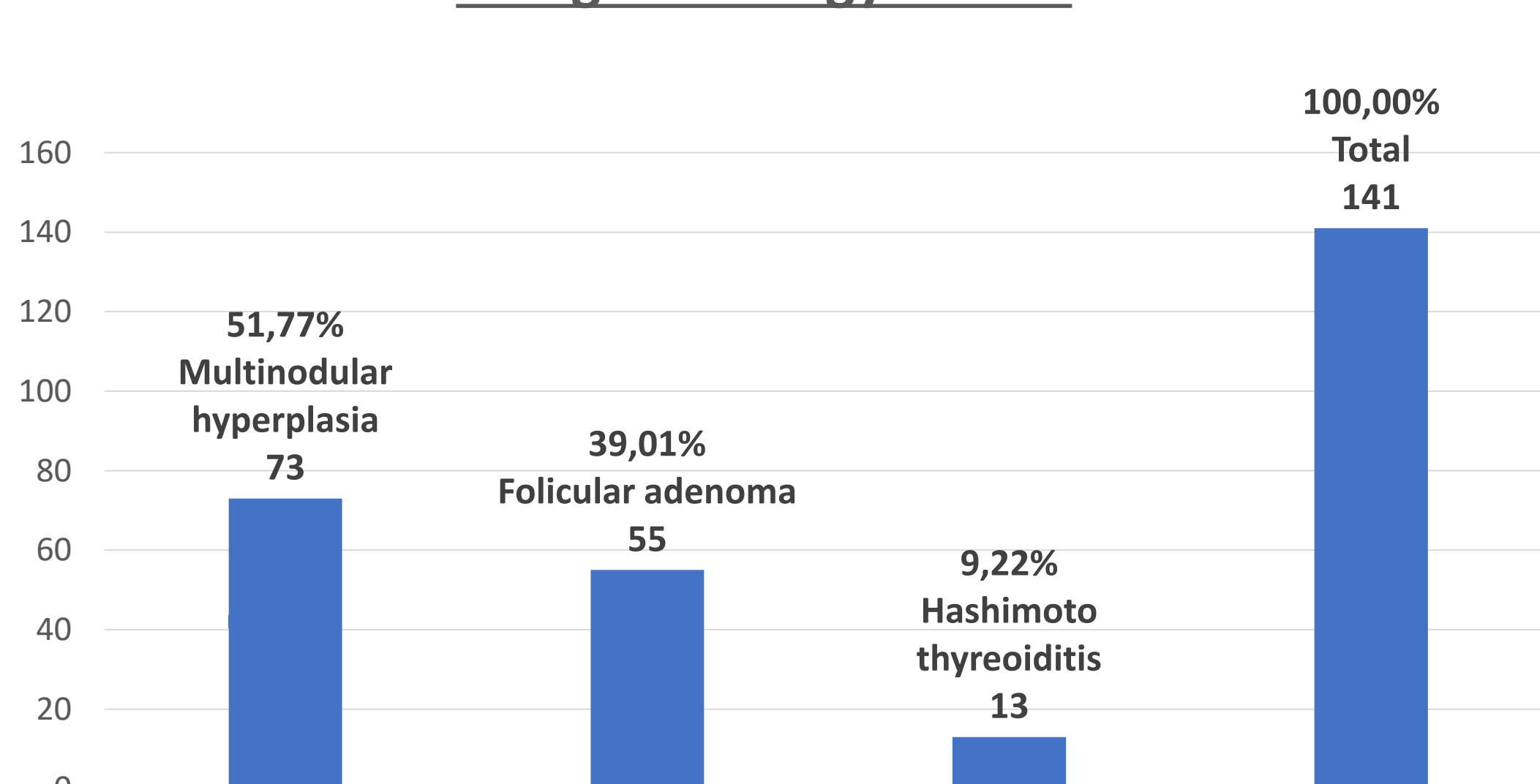
A group of 180 patients (147 female and 33 male patients) with preoperatively known Bethesda category and with performed operation on thyroid gland at the Dpt. of Otorhinolaryngology of the University Hospital in Pilsen in 2016 – 2017 were examined. We have compared an expected diagnosis with postoperatively known histology diagnosis and determined a risk of malignancy rate for each category of Bethesda classification.

RESULTS

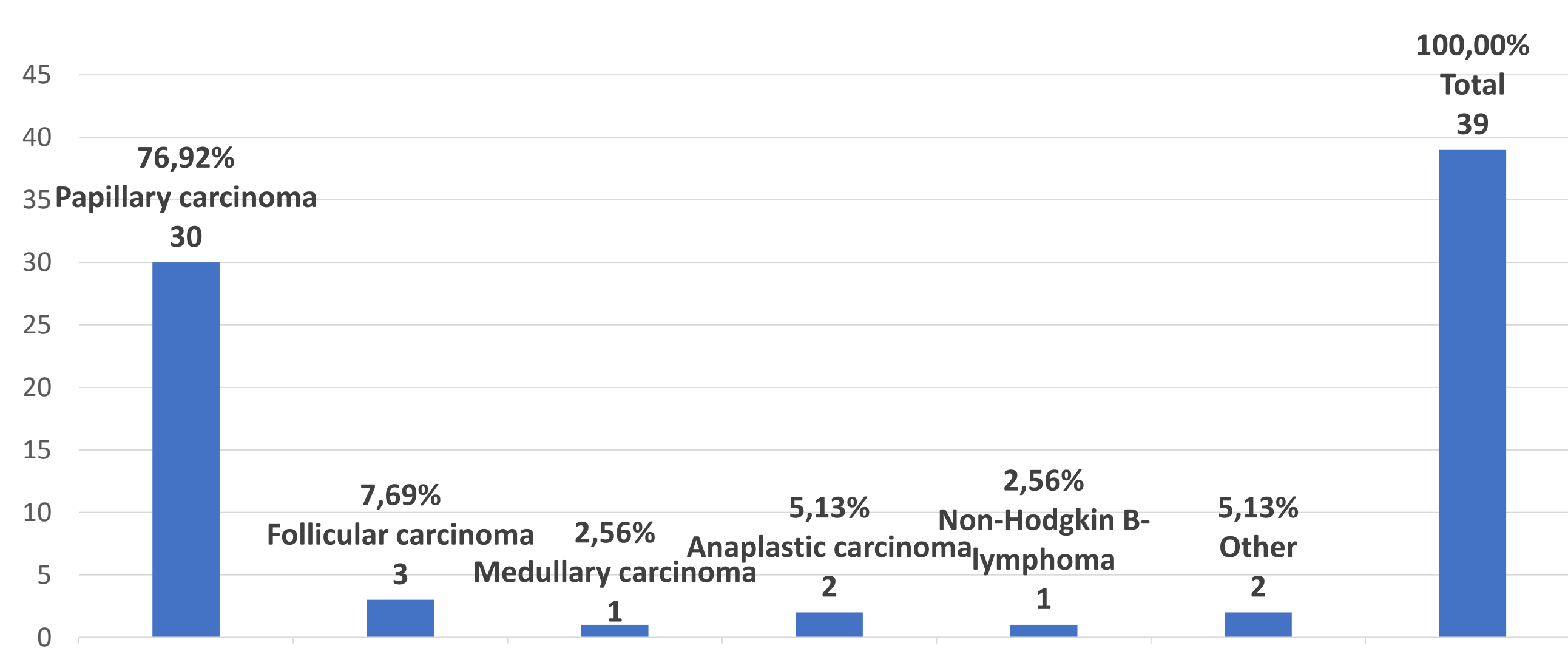
- **Histology:** benign - 141 cases (78,33 %), malignant - 39 cases (21,66 %)
- **Benign histology results:** multinodular hyperplasia (73 cases, 51,77 %), follicular adenoma (55 cases, 39,01 %), Hashimoto thyroiditis (13 cases, 9,22 %)
- **Malignant histology results:** papillary carcinoma (30 cases, 76,92 %), follicular carcinoma (3 cases, 7,69 %), anaplastic carcinoma (2 cases, 5,13 %), medullary carcinoma and non-Hodgkin B-lymphoma (1 case each diagnosis, 2,56 %), 1 case of the renal carcinoma metastasis, 1 case of well-differentiated tumor of the unknown malignancy potential (5,13 % together as „other“ in a diagram below)
- **Risk of malignancy rate:** Bethesda I. – 14,29 %, Bethesda II. – 14,29 %, Bethesda III. 15,79 %, Bethesda IV. – 10,64 %, Bethesda V. – 52,17 %, Bethesda VI. – 100 % (comparison with foreign literature - see the table below)

Authors	Bethesda I.	Bethesda II.	Bethesda III.	Bethesda IV.	Bethesda V.	Bethesda VI.
Cibas, Ali	5-10 %	0-3 %	6-18 %	10-40 %	45-60 %	94-96 %
American thyroid association	2-4 %	1-2 %	6-48 %	14-33 %	53-87 %	94-100 %
University Hospital in Pilsen	14,29 %	14,29 %	15,79 %	10,64 %	52,17 %	100 %

Benign histology results



Malignant histology results



CONCLUSION

- In a group of our patients a risk of malignancy rate differs in Bethesda I. and II. category, our risk of malignancy rate is higher compared to literature
- We believe it is caused by a statistical error due to a rather small set of patients