

# Papillary thyroid carcinoma in children: 33 years of experience of a single institution in Serbia

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## INTRODUCTION

Well differentiated thyroid carcinoma in children is rare [1], but it shows aggressive behaviour. Gross lymph node metastases and distant metastases are common on first clinical presentation [2].

**The aim of this study** was to analyze the clinical features, effectiveness of surgical approach, radioactive iodine (RAI) therapy, thyroxin suppressive-substitutional treatment and long-term outcome of 24 patients under or equal to 16 years of age, with well-differentiated thyroid carcinoma surgically treated in our institution.

## MATERIALS AND METHODS

During 33 years (1981-2014) at the Institute for oncology and radiology of Serbia 24 children were operated due to papillary thyroid carcinoma. Mean age was 12.6 (range 7-16) years. At the time of diagnosis, 12.5% patients had lung metastases. Total thyroidectomy or completion of thyroidectomy was performed in all cases, followed with central neck dissection and frozen section examination of the jugulo-carotid compartments. Median follow-up was 10.1 (range 2.0 –29.4) years.

## RESULTS

All patients had papillary thyroid carcinoma. pT1a tumors were found in 12.5%, pT1b in 25%, pT2 in 20.83%, pT3 in 25% and pT4 in 16.67%. Multifocal tumors were found in 79.17% and capsular invasion in 83.33%. Lymphonodal metastases in either central or lateral neck compartments were found in 75% of patients. Median DFI has not been reached and overall survival rate was 100%.

## CONCLUSION

Papillary thyroid carcinoma in children is characterized with high rate of loco-regional aggressiveness, multifocality, capsular invasion, lymph node metastases and distant metastases at the time of diagnosis. Extensive surgical approach should be performed in both primary and recurrent disease in young patients with well differentiated thyroid carcinoma in order to achieve loco-regional disease control and long disease free survival.

## REFERENCES

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Thyroid cancer