Results of treatment in children with rhabdomyosarcoma – a single institution retrospective study

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BACKGROUND/PURPOSE

Rhabdomyosarcoma (RMS) is the most common soft-tissue sarcoma of childhood and it accounts for 3% of childhood cancers. Radiation treatment is part of multidisciplinary treatment of most patients with this disease.

This is a retrospective study which aims to present demographic characteristics, pathological features, local control, overall survival and sites of failures in children with rhabdomyosarcoma treated with a multidisciplinary approach in our institution between 2010-2017.

MATERIAL & METHODS

Demographics

2010-2017 Cluj-Napoca Pediatric Oncology Department

Age < 18 years old

Treatment: surgery, CHT and RT

15 patients

(5-10 yrs) (Median: 6 yrs)

Patient Characteristics

<table>
<thead>
<tr>
<th>No. of patients</th>
<th>Localization</th>
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<tbody>
<tr>
<td>12</td>
<td>Histology/ Site of Primary Tumor</td>
</tr>
<tr>
<td>1</td>
<td>Abdominal</td>
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<td>1</td>
<td>Pelvin</td>
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<tr>
<td>1</td>
<td>Limb</td>
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</tbody>
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STAGE BY SITE

Median Total Dose: 41.4 Gy (27-76 Gy with 1.8-2 Gy/fr)

Median Follow-up: 31 months (15-109 months)

Statistical analysis: descriptive

RESULTS

Time between diagnosis and first step of treatment: median 21 days (4 - 107 days)

Treatment Response:

DFS: (1 - 16 months).

Failure: 9 patients (53.33%)

Local failures: and 1 patients (total: 3 patients)

Distant failures: 5 + 1 patients (7 patients)

One patient lost from observation with no evidence of local or distant relapse.

Failure's Treatment

- Chemotherapy – other protocols (9 patients)
- Salvage surgery (2 patients)
- Radiotherapy with curative/palliative intent (7 patients)

5 patients receive RT only after relapse.

Survival Analysis

2 year OS = 80%; 3 year OS = 53.33%

At time of analysis

- 6 patients alive – 2 with active disease (metastases)

CONCLUSIONS

This retrospective analysis emphasizes the heterogenous character of patients with rhabdomyosarcoma tumors (histology, localization, staging and treatment administered). Radiotherapy plays an important role in the local control of the patients with RMS. The stage of disease, total dose administered, adherence to chemotherapy protocol correlates well with sites of failures. Our data needs to be completed with subsequent prospective studies regarding acute toxicities and late adverse effects of treatment. The most common cause of treatment failure was distant metastasis. The OS is correlated with advanced disease at presentation that requires a better education of both parents and primary care providers.

REFERENCES / ACKNOWLEDGEMENTS

No conflict of interest. There is no conflict of interest

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