Background

Synovial sarcoma (SS) is a rare and aggressive subtype of soft tissue sarcoma (STS), with an incidence of 1-2 cases per year in the US.1

Most patients initially present with localized disease but approximately half will progress to metastatic SS (mSS), which is usually incurable, and is associated with a significantly poorer prognosis compared with localized disease.1-3

Current treatment options exist for STS but none are specific for SS and treatment options are limited for patients with mSS.

There are limited international, natural history studies in patients with SS and data on demographics, and clinical characteristics, treatment patterns and outcomes are not available for patients treated within the US community oncology setting.

Methods

This was a retrospective, observational cohort study (GSK: 208280) of patients with mSS treated in the US Oncology Network of community practices.

All mSS adult patients initiating first-line (1L) systemic treatment during the study identification period (January 1, 2012 and December 31, 2016) were included. Patients eligible for 1L were determined by their treating or referring oncologist were included.

Both electronic health record (EHR) and chart review data were used. Study data were extracted from the oncology database (Oncolink) and GSK’s database.

Metastatic disease was determined using diagnostic and clinical details from EHR data, including tumor stage, tumor node metastasis (TNM), presence of distant metastatic disease, and documented metastatic disease stage.

Demographic and clinical characteristics, as well as treatment patterns, were reported based on an index date (on-study day) and first systemic treatment initiation at the metastatic setting and stratified by lines of systemic therapy.

Results

Patient population and characteristics

Out of the 158 patients who received 1L for SS, 87 (55.5%) were male and 71 (44.5%) were female. The median age was 51 years (range: 9-86). The most common metastatic disease of origin was disease of SS (65% of localized disease). Most patients had lung metastases (64%) and had one metastatic site (74%).

Conclusions

This study provides information on treatment patterns for patients with mSS treated across multiple institutions within a US community oncology setting.

About 2/3 of patients with mSS received 1L systemic treatments. While the combination of docetaxel and ifosfamide was most common in the 1L setting, no efficacy exists in the 2L and 3L settings. Reteplase-containing regimens and paclitaxel-containing regimens were used more frequently in 2L, and various chemotherapy (monotherapy) regimens more frequently in the 3L settings.

TTC and TTNT reduced with subsequent lines of therapy, demonstrating the need for more effective treatment options for patients with mSS that can further delay disease progression.

Acknowledgments

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Disclosures

SP is an employee of, and owns stock in Gliosphere (GSPH), WWF and AAJ are employees of GSK and own stock in GSK. AL is an employee of Oncol, KD is an employee of GSK; LK is an employee of Fotiya; and KAD is an employee of GSK. KA receives payment for speaker and consultant arrangements from Merck, AstraZeneca, Genentech, and GI Therapeutics.

References


Table 1: Baseline demographics and clinical characteristics

<table>
<thead>
<tr>
<th>Age, years (n=158)</th>
<th>15 (15.4%)</th>
<th>20-39 (40.3%)</th>
<th>40-69 (41.1%)</th>
<th>70+ (3.8%)</th>
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</thead>
<tbody>
<tr>
<td>Male, n (%)</td>
<td>87 (55.5%)</td>
<td>36 (72.0%)</td>
<td>43 (70.5%)</td>
<td>8 (50.0%)</td>
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<tr>
<td>Race, n (%)</td>
<td>Caucasian</td>
<td>109 (69.2%)</td>
<td>29 (58.0%)</td>
<td>23 (36.5%)</td>
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<tr>
<td>Stage, n (%)</td>
<td>1a</td>
<td>17 (10.7%)</td>
<td>26 (5.1%)</td>
<td>5 (7.8%)</td>
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<tr>
<td>Site of distant metastasis, n (%)</td>
<td>1+</td>
<td>23 (14.5%)</td>
<td>21 (42.0%)</td>
<td>13 (20.5%)</td>
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<tr>
<td>Number of metastatic sites, n (%)</td>
<td>1</td>
<td>31 (20.2%)</td>
<td>29 (57.4%)</td>
<td>17 (26.5%)</td>
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<tr>
<td>Site of distant metastasis, n (%)</td>
<td>2</td>
<td>14 (9.0%)</td>
<td>12 (24.0%)</td>
<td>8 (12.5%)</td>
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<tr>
<td>Site of distant metastasis, n (%)</td>
<td>3</td>
<td>10 (6.4%)</td>
<td>9 (18.0%)</td>
<td>4 (6.3%)</td>
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<tr>
<td>Site of distant metastasis, n (%)</td>
<td>4</td>
<td>7 (4.5%)</td>
<td>6 (12.0%)</td>
<td>3 (4.7%)</td>
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<tr>
<td>Site of distant metastasis, n (%)</td>
<td>≥5</td>
<td>4 (2.6%)</td>
<td>3 (6.0%)</td>
<td>1 (1.5%)</td>
</tr>
</tbody>
</table>

Figure 1. Treatment sequencing from 1L to 2L to 3L during the observation period

Figure 2. The median TTC reduced with each subsequent line of treatment, decreasing from 6.3 (95% CI: 2.9-10.5) months at 1L to 4.8 (95% CI: 3.1-6.0) months at 2L and 2.7 (95% CI: 0.9-4.6) months at 3L (p=0.002). Table 3 shows the number of regimens in 3L. Treatment groups were determined based on the actual regimen, frequency distribution, and sample size. Only the top five regimens are shown.

Figure 3. The median TTNT decreased with each subsequent line of treatment, decreasing from 3.3 (95% CI: 2.0-5.1) months at 1L to 2.6 (95% CI: 1.7-3.6) months at 2L and 1.0 (95% CI: 0.5-1.5) months at 3L (p<0.001). The QR code will be activated following the completion of the AACR virtual program on April 15. Please scan the QR code for more information.