Solitary Plasmacytoma (Bone and Extramedullary)

Note: Consider Clinical Trials as treatment options for eligible patients.

INITIAL EVALUATION

- History and physical (if palpable upon physical examination, document the size of mass)
- CBC with differential, CMP, LDH, beta-2-microglobulin, serum quantitative immunoglobulins, serum protein electrophoresis, serum immunofixation, serum free light chains (kappa and lambda), and quantitative immunoglobulins (IgG, IgM, IgA)
- 24-hour urine protein electrophoresis and urine immunofixation
- Bone marrow biopsy and aspirate (immunohistochemistry, flow cytometry, cytogenetics, and FISH; molecular diagnostics if available and indicated)
- Tissue biopsy (immunohistochemistry, flow cytometry, cytogenetics, and FISH; molecular diagnostics if available and indicated)
  - Touch imprints for additional FISH testing as clinically indicated
- PET/CT of whole body **or** non-contrast MRI of whole body
- If PET/CT of whole body or MRI of whole body is unavailable, then perform MRI of the cervical, thoracic, lumbar spine with and without contrast
- Consider CT with contrast or MRI with and without contrast of the affected area, if clinically indicated
- Lifestyle risk assessment[1]

TREATMENT

Patient's initial evaluation findings meet criteria for multiple myeloma treatment[2]?

Yes → Treat as multiple myeloma (see Multiple Myeloma algorithm)

No →
- Treat as solitary plasmacytoma, see Page 2
- Risk assessment for progression to multiple myeloma[3]
- Discuss Goal Concordant Care (GCC) with patient or if clinically indicated, with Patient Representative[4]

CMP = comprehensive metabolic panel
FISH = fluorescence in situ hybridization

[1] See Physical Activity, Nutrition, Obesity Screening and Management and Tobacco Cessation Treatment algorithms; ongoing reassessment of lifestyle risks should be a part of routine clinical practice

[2] Criteria for multiple myeloma treatment:
- Anemia, hypercalcemia, renal failure due to multiple myeloma **and/or**
- Bony lytic lesions due to multiple myeloma in a skeletal survey **and/or** MRI of whole body and/or PET/CT of whole body **and/or**
- Serum free light chains involved:uninvolved ratio ≥ 100 **and/or**
- Greater than one focal lesions on MRI (each focal lesion must be 5 mm or more in size) **and/or**
- Percentage of clonal plasma cells is ≥ 60% in the core biopsy by CD138 immunohistochemistry

Note: Treatment may be considered if percentage of clonal plasma cells is ≥ 10% in the core biopsy by CD138 immunohistochemistry

[3] Risk assessment:
- Plasmacytoma size ≥ 5 cm at diagnosis
- Persistent presence of serum paraprotein 1 year after treatment

Rates of progression to multiple myeloma for patients with 1 or 2 risk factors:
- 3 years from diagnosis – 65%
- 5 years from diagnosis – 70%
- 10 years from diagnosis – 82%

[4] GCC should be initiated by the Primary Oncologist. If Primary Oncologist is unavailable, Primary Team/Attending Physician to initiate GCC discussion and notify Primary Oncologist. Patients, or if clinically indicated, the Patient Representative should be informed of therapeutic and/or palliative options. GCC discussion should be consistent, timely, and re-evaluated as clinically indicated. The Advance Care Planning (ACP) note should be used to document GCC discussion. Refer to GCC home page (for internal use only).

Department of Clinical Effectiveness V7
Approved by the Executive Committee of the Medical Staff on 09/17/2024

Solitary Plasmacytoma (Bone and Extramedullary)

Note: Consider Clinical Trials as treatment options for eligible patients.

CLINICAL PRESENTATION

Solitary plasmacytoma of bone (SPB)

Solitary extramedullary plasmacytoma (EMP)

PRIMARY TREATMENT

Treat with involved site radiation therapy (ISRT) to a total dose of 35-45 Gy (regardless of site)[1]

FOLLOW-UP SURVEILLANCE

Evaluate response every 3 months for the first 2 years, then every 6-12 months thereafter:

- Risk assessment for multiple myeloma progression[2]
- CBC with differential, CMP, LDH, beta-2-microglobulin, serum quantitative immunoglobulins, serum protein electrophoresis, serum immunofixation, serum free light chains (kappa and lambda), and quantitative immunoglobulins (IgG, IgM, IgA)
- 24 hour urine for total protein, urine protein electrophoresis and urine immunofixation
- PET/CT every 3 months after completion of ISRT until complete metabolic response after which a CT or MRI may be obtained, as clinically indicated
- Bone marrow biopsy and aspirate as clinically indicated

Complete response

- Complete disappearance of paraprotein in serum or urine by immunofixation and normalization of sFLC
- No new bone lesions or other features of multiple myeloma (see Multiple Myeloma algorithm)

→ Re-evaluate as indicated

Persistent presence of serum paraprotein 1 year after treatment **or** persistent activity on imaging 6 months after treatment → Multidisciplinary conference with disease site specialists

Progressive disease →

- Restage with myeloma workup
- See Multiple Myeloma algorithm
- Discuss GCC with patient or if clinically indicated, with Patient Representative[3]

[1] Although historically the recommended dose has been 40-50 Gy, more recent data suggests that lower doses may be sufficient (35 Gy for lesions < 5 cm). Refer to suggested readings for data regarding ISRT dose.

[2] Risk assessment:

- Plasmacytoma size ≥ 5 cm at diagnosis
- Persistent presence of serum paraprotein 1 year after treatment

Rates of progression to multiple myeloma for patients with 1 or 2 risk factors:

- 3 years from diagnosis – 65%
- 5 years from diagnosis – 70%
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SUGGESTED READINGS

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MD Anderson Institutional Policy #CLN1202 - Advance Care Planning Policy
Advance Care Planning (ACP) Conversation Workflow (ATT1925)

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DEVELOPMENT CREDITS

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