Hyperthyroidism after Bone Marrow Transplantation: A Report of Two Cases

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INTRODUCTION

Hyperthyroidism is a rare condition after childhood cancer treatment. The survival rate for most pediatric cancers have steadily improved1). CCSs have experienced increasing cumulative incidence for endocrine disorders2).


CASE REPORTS

#1; 30 y/o Male, Adrenoleukodystrophy
Age at BMT: 10 years
Donor: HLA-unmatched sister → TSAb; negative
Conditioning: 1st TAI + Bu + CY + ATG 2nd Bu + CY + ATG
GvHD prophylaxis: sMTX + CyA
acute GvHD: grade 1 (skin), PSL initiated
chronic GvHD: none

#2; 21 y/o Male, Severe aplastic anemia
Age at BMT: 15 years
Donor: HLA-matched sister → TSAb; negative
Conditioning: 1st CY + ATG
GvHD prophylaxis: sMTX + ATG
acute GvHD: none
chronic GvHD: none

DISCUSSION

CASE REPORTS

#1; 30 y/o Male, Adrenoleukodystrophy
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Conditioning: 1st TAI + Bu + CY + ATG 2nd Bu + CY + ATG
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#2; 21 y/o Male, Severe aplastic anemia
Age at BMT: 15 years
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Conditioning: 1st CY + ATG
GvHD prophylaxis: sMTX + ATG
acute GvHD: none
chronic GvHD: none

DISCUSSION

The incidence of hyperthyroidism after BMT in our institute.
Case reports

RESULT

Hyperthyroidism: 1.3% (2/156 patients)
Hypothyroidism: 30% in our institute3).
Retrospective evaluation of thyroid function in survivors who underwent BMT and are follow-up at our institute.
3) JCEM. 2004; 89: 5981-6.

CONCLUSION

Graves’ disease is a rare late endocrine complication after BMT. The thyroid status of each BMT recipient should be screened before and after the treatment. Further studies are warranted to assess the requirement of screening for thyroid autoantibodies before or after BMT.

Abbreviations:
ATG, antithymocyte globulin; BMT, bone marrow transplantation; Bu, busulfan; CCS, childhood cancer survivor; CY, cyclophosphamide; CyA, cyclosporine; GvHD, graft-versus-host disease; MMI, methimazole; sMTX, short-term methotrexate; TSAb, thyroid stimulating antibody; TSHR, TSH receptor; TAI, thoracoabdominal irradiation

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