

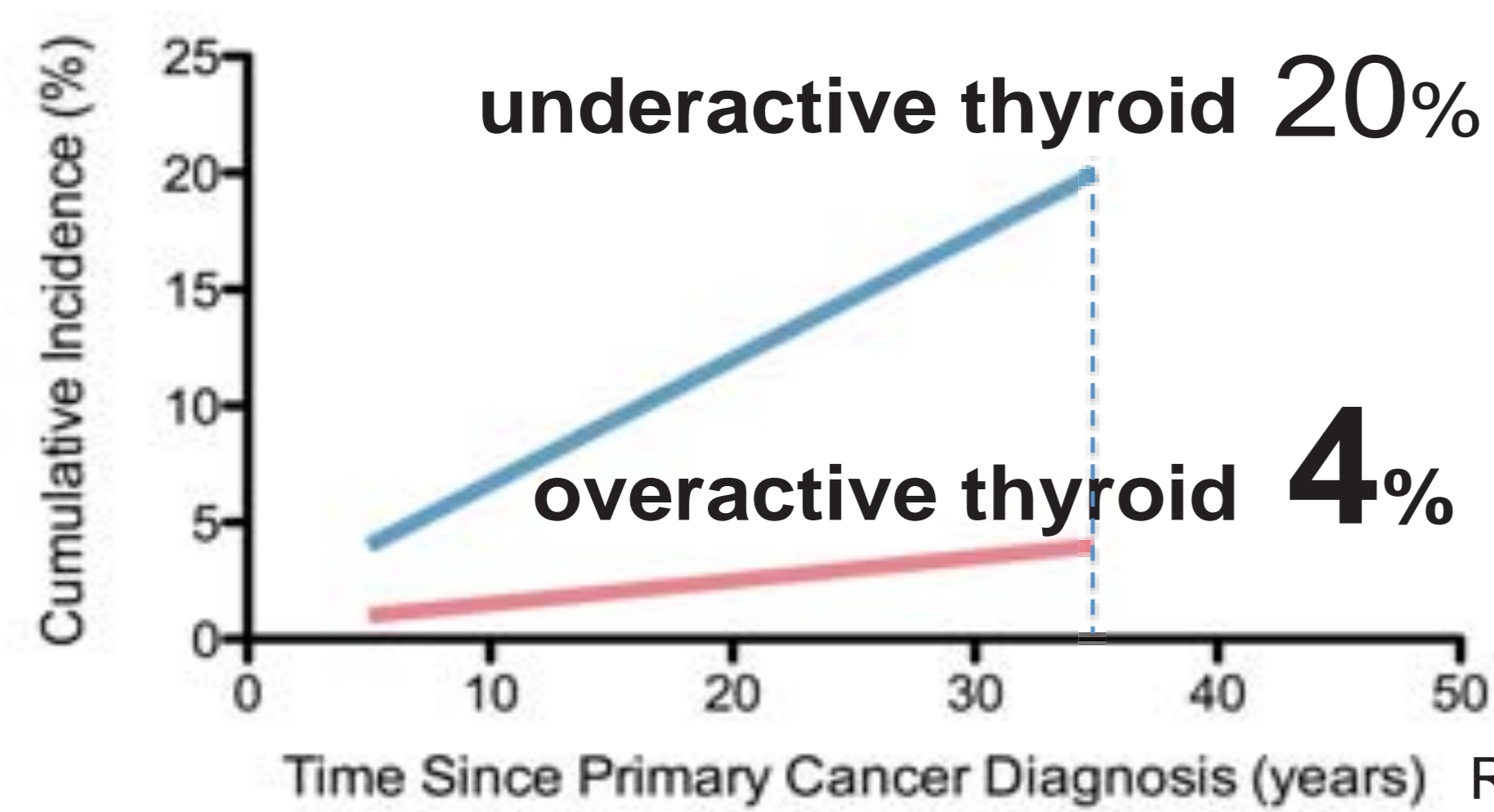
Hyperthyroidism after Bone Marrow Transplantation: A Report of Two Cases

Hiroyuki Ishiguro, M.D. *, 1), 2), Hiromi Hyodo, M.D. *, 2), 3), Shunichi Kato, M.D. *, 4)

1) Dept. of Pediatrics, Isehara Kyodo Hospital, 2) Dept. of Pediatrics, Tokai University School of Medicine, 3) Dept. of Pediatrics, Japanese Red Cross Hadano Hospital
4) Dept. of Cell Transplantation & Regenerative Medicine, Tokai University School of Medicine, * The authors indicated no potential conflict of interest

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⁾.

1) Nat Rev Cancer. 2014; 14: 61-70.
2) JCO. 2016 Jul 5. pii: JCO666545.

OBJECTIVES

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

RESULT

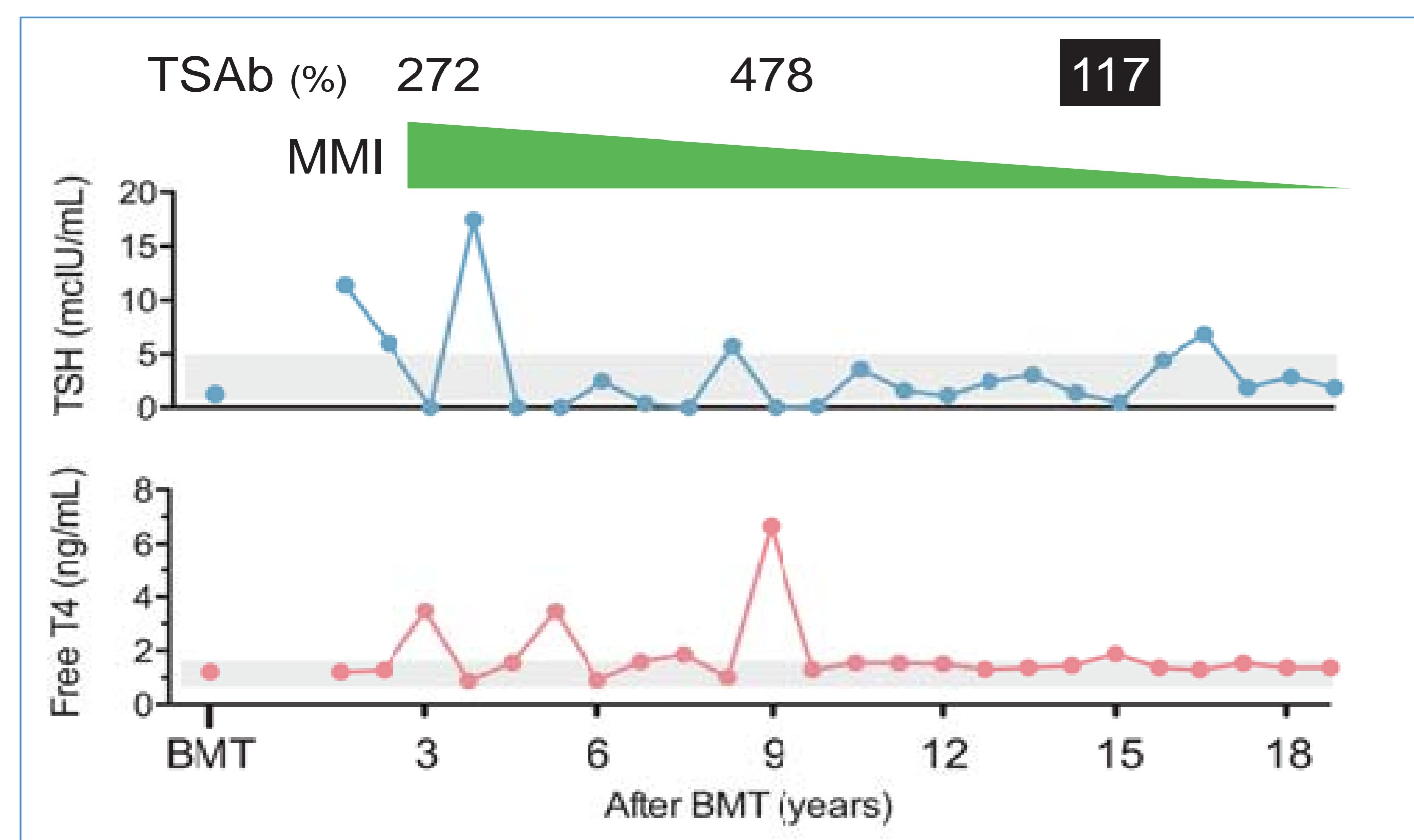
Hyperthyroidism: 1.3% (2/156 patients)
Hypothyroidism: 30% in our institute³⁾.

Retrospective evaluation of thyroid function in survivors who underwent BMT and are follow-up at our institute.
3) JCEM. 2004; 89: 5981-6.

CASE REPORTS

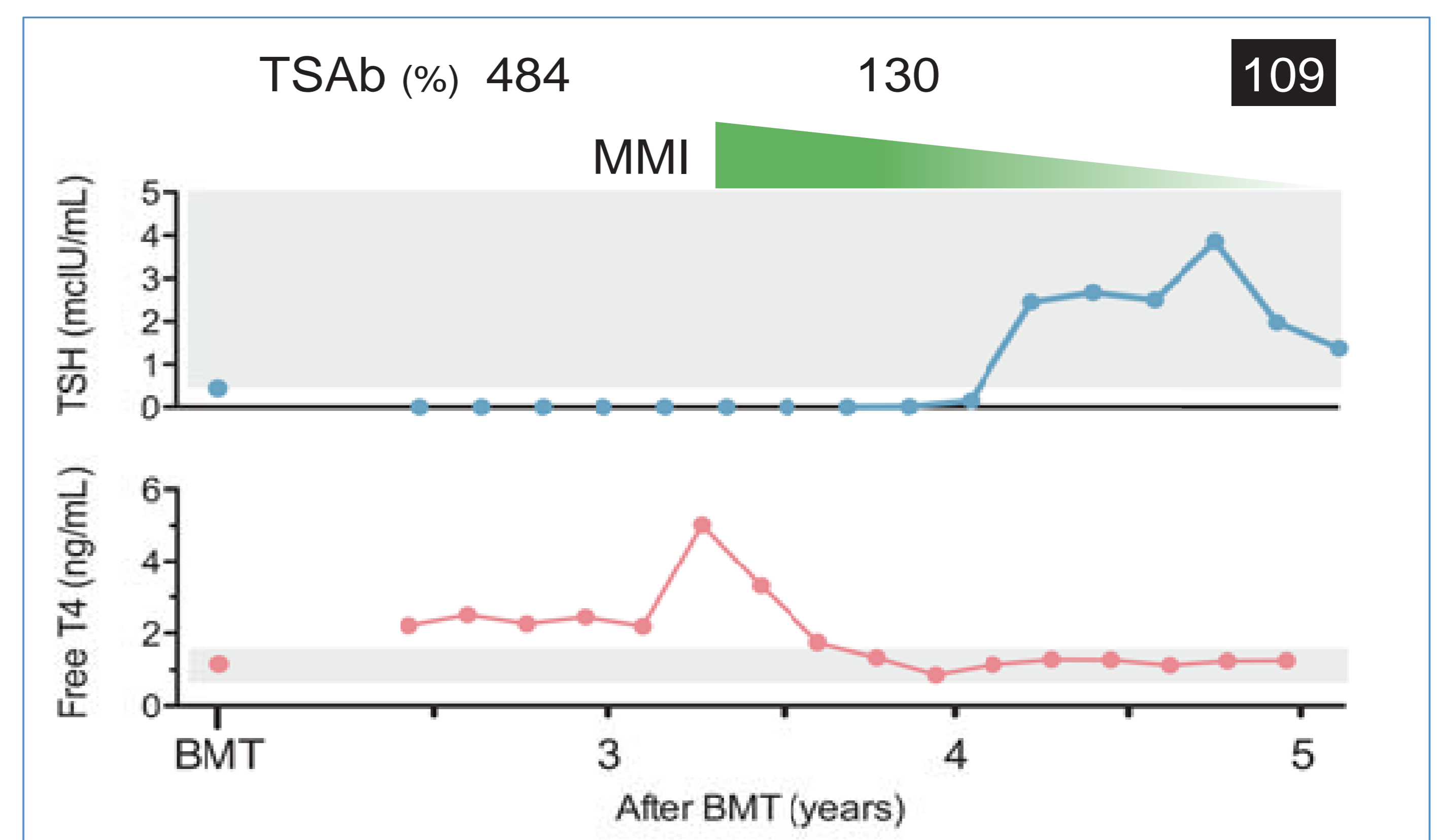
#1; 30 y/o Male, Adrenoleukodystrophy

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

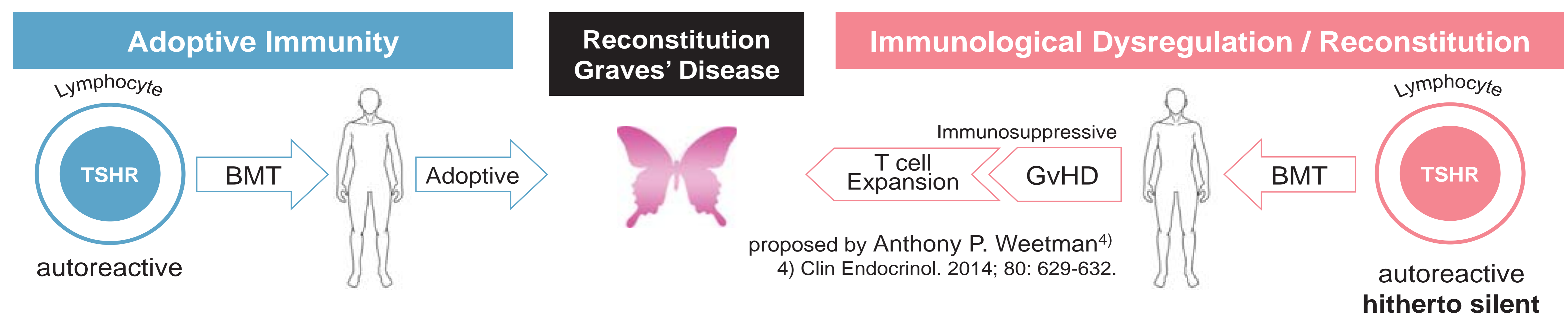


#2; 21 y/o Male, Severe aplastic anemia

Age at BMT: 15 years
Donor: HLA-matched sister → TSAb; negative
Conditioning: 1st CY + ATG
GvHD prophylaxis: sMTX + CyA
acute GvHD: none
chronic GvHD: none



DISCUSSION



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