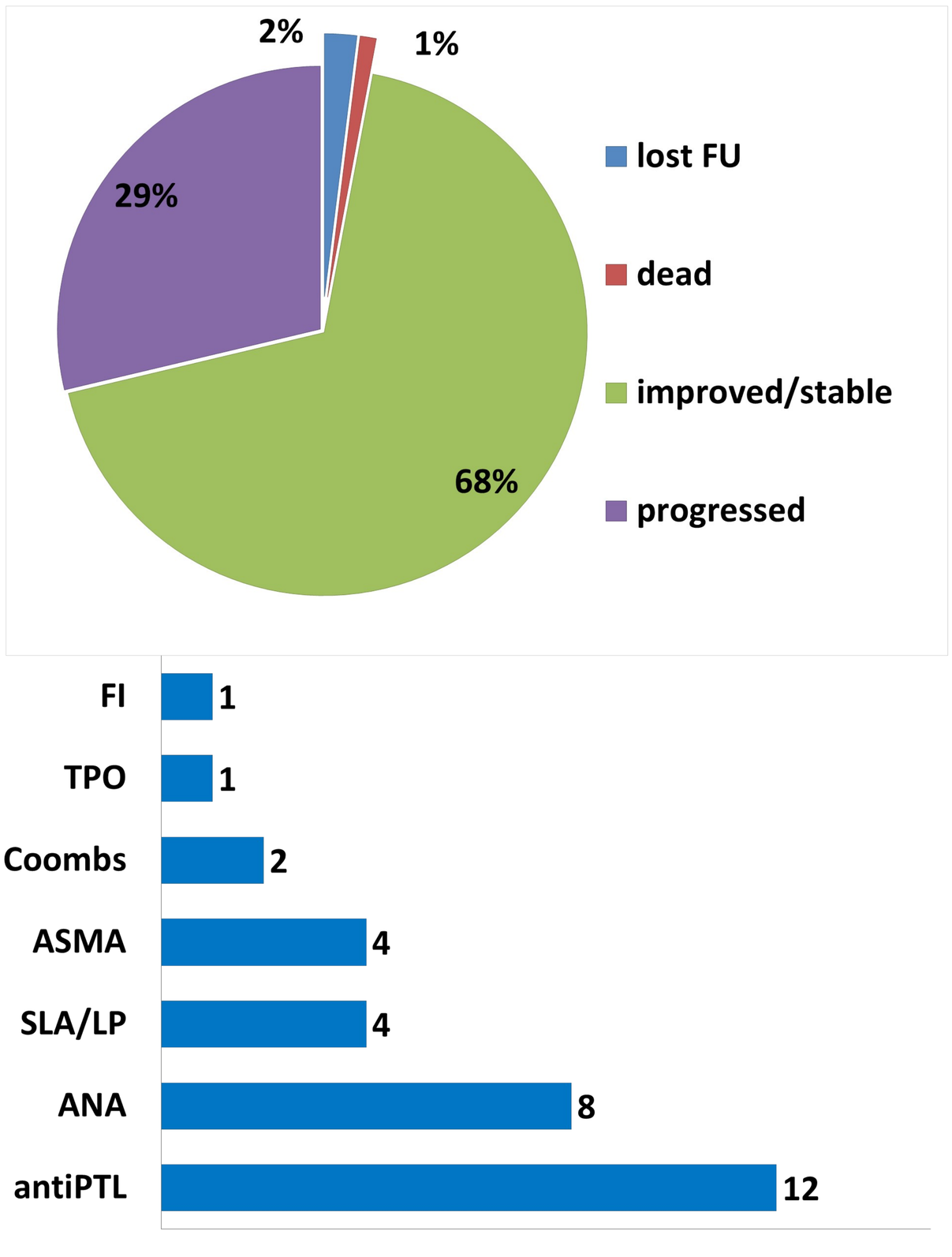
OCCURRENCE OF AUTOIMMUNE DISEASES IN MULTIPLE SCLEROSIS PATIENTS TREATED WITH AUTOLOGOUS HEMATOPOIETIC STEM CELL TRANSPLANTATION

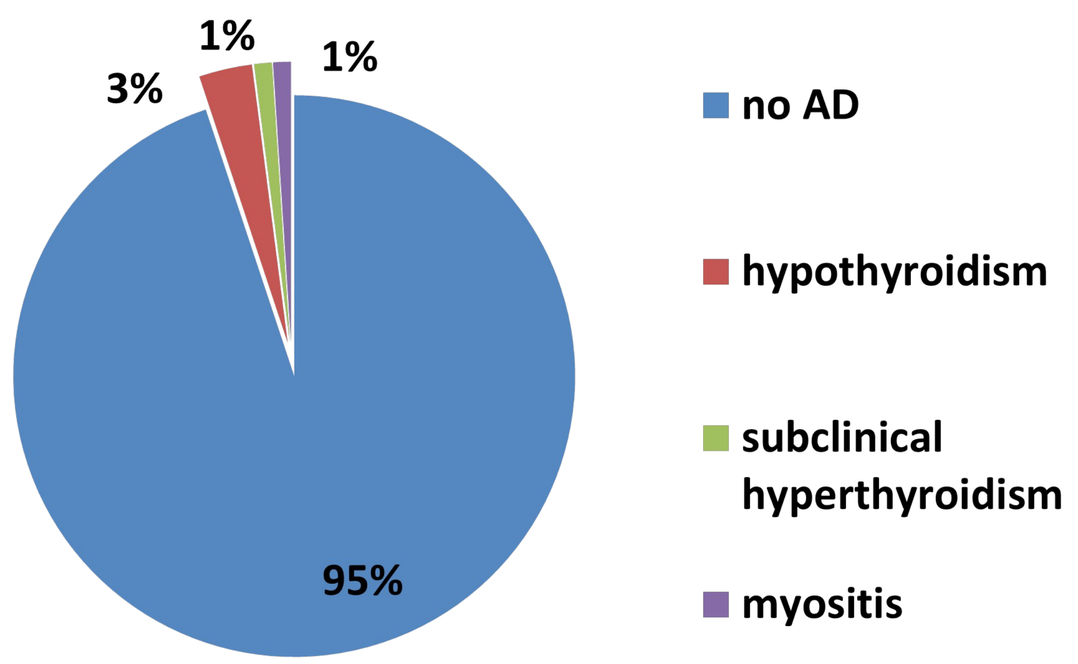
Currò D (1), Capobianco M (2), Bertolotto A (2), Saccardi R (3), Repice A (4), Mariottini A (4), Gualandi F (5), Mancardi GL (1).

1. Department of Neuroscience, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health - University of Genova - Genova
2. Clinical Neurology Unit, Regional Referring Multiple Sclerosis Centre (CReSM) - San Luigi Gonzaga University Hospital - Orbassano
3. Haematology Department - Careggi University Hospital - Firenze Neurology 2 Division - Careggi University Hospital - Firenze
4. Neurology 2 Division - Careggi University Hospital - Firenze
5. Bone Marrow Transplantation Unit - IRCCS San Martino-IST - Genova

Intense immunosuppression followed by autologous hematopoietic stem cell transplantation (AHSCT) is used since 20 years for the treatment of aggressive forms of Multiple Sclerosis (MS) with good clinical results. The use of this effective therapy is limited by the not negligible transplant related mortality of about 1-2% and by early and late side effects. Among late adverse events, a particular interest is growing in autoimmune diseases (AD), considering the recent approval of alemtuzumab, a treatment for MS complicated by the occurrence of AD in about 30% of patients. A study, evaluating secondary AD occurring after AHSCT for a primary AD, showed an incidence of 9.8% during a 5 years follow-up (FU), but no specific data are available for MS patients.



In Italy, in the centers of Genova, Firenze and Torino, 101 patients have been treated with AHSCT since 1998, mean EDSS at baseline was 5,7 (range 1-9); after a mean FU of 52 months (range 1-198), only 29% experienced a disease progression. In 98 patients we evaluated the possible occurrence of secondary AD: 4 patients developed autoimmune thyroiditis, in 3 cases a therapy with levothyroxine was required, while 1 patient presented a subclinical autoimmune hyperthyroidism with positive anti-thyroid peroxidase antibodies (TPO), requiring only a clinical FU. 1 patient experienced an asymptomatic autoimmune myositis, which required treatment with steroids and azathioprine with normalization of electrophysiological and laboratory findings. No autoimmune thrombocytopenia or glomerulonephritis occurred.



In 26 patients we also performed blood tests to detect the presence of serum antibodies related to a subclinical AD. Anti TPO autoantibodies were detected in 1 patient, associated with a reduction of TSH, allowing to identify a subclinical autoimmune hyperthyroidism, anti-platelets autoantibodies were detected in 12 patients without thrombocytopenia, anti-nuclear factor autoantibodies in 8 patients, anti-soluble liver antigen autoantibodies in 4 cases without alteration in liver function, anti-smooth muscle autoantibodies in 4 patients, anti-intrinsic factor autoantibodies in 1 patient and Coombs test was positive in 2 patients without anemia. The incidence of secondary AD in our group of patients is 5,1%, with a high frequency of thyroid dysfunction (4%), suggesting to perform periodic thyroid antibodies testing in all patients treated with AHSCT. This evidence of a significantly lower incidence of secondary AD in a wide cohort of patients treated with AHSCT, compared to patients treated with alemtuzumab, suggests the need of a careful choice for patients affected with aggressive forms of MS, among available therapeutic options.

Sin

XLVI CONGRESSO NAZIONALE
10-13 OTTOBRE 2015 – GENOVA

WebPoster