Blood. 2021 Aug 19;138(7):571-583

PMID: 33889952 DOI: 10.1182/blood.2021010735

Real-world use of thrombopoietin receptor agonists in older patients with primary immune thrombocytopenia

Francesca Palandri, Elena Rossi, Daniela Bartoletti, Antonietta Ferretti, Marco Ruggeri, Elisa Lucchini, Valentina Carrai, Wilma Barcellini, Andrea Patriarca, Elena Rivolti, Ugo Consoli, Silvia Cantoni, Esther Natalie Oliva, Federico Chiurazzi, Giovanni Caocci, Gaetano Giuffrida, Alessandra Borchiellini, Giuseppe Auteri, Erminia Baldacci, Giuseppe Carli, Daniela Nicolosi, Emanuele Sutto, Monica Carpenedo, Michele Cavo, Maria Gabriella Mazzucconi, Francesco Zaja, Valerio De Stefano, Francesco Rodeghiero, Nicola Vianelli

Abstract

The efficacy and safety of thrombopoietin receptor agonists (TRAs) in older patients with primary immune thrombocytopenia (ITP) are unknown. We investigated TRA response and switch, thrombotic/hemorrhagic risk, and sustained responses off-treatment (SROTs) in 384 patients with ITP aged ≥60 years. After 3 months, 82.5% and 74.3% of eltrombopag- and romiplostim-treated patients, respectively, achieved a response; 66.7% maintained the response (median follow-up, 2.7 years). Eighty-five (22.2%) patients switched to the alternative TRA; although no cross-toxicity was observed, 83.3% of resistant patients had a response after the switch. Thirty-four major thromboses (3 fatal) and 14 major hemorrhages (none fatal) occurred in 18 and 10 patients, respectively, while on TRAs and were associated with thrombosis history (subdistribution hazard ratio, 2.04, P = .05) and platelet count <20 × 109/L (subdistribution hazard ratio, 1.69; P = .04), respectively, at TRA start. A recurrent event occurred in 15.6% of patients surviving thrombosis, in all cases but 1 during persisting TRA treatment (incidence rate, 7.7 per 100 patient-years). All recurrences occurred in the absence of adequate antithrombotic secondary prophylaxis. Sixty-two (16.5%) responding patients discontinued TRAs; 53 (13.8%) patients maintained SROTs, which were associated with TRA discontinuation in complete response (P < .001). Very old age (≥75 years; 41.1%) was associated with the more frequent start of TRAs in the persistent/acute phase but not with response or thrombotic/hemorrhagic risk. TRAs are effective in older patients with ITP, with no fatal hemorrhages and with SROTs in a significant portion of patients. Caution is warranted in patients with a history of thrombosis, and a careful risk/benefit balance should be considered.