A Turing machine with stay put is similar to an ordinary Turing machine, except that its transition function has the form:

\[ \delta : Q \times \Gamma \rightarrow Q \times \Gamma \times \{R, L, S\} \]

At each point, the machine can move its head right, left, or let it stay in the same position. Is this Turing machine variant equivalent to the standard version? Prove why or why not.