Symmetric spaces and cohomology of algebraic groups

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A symmetric space over a field of characteristic not 2 is the quotient G/G^σ, where σ is an involution on a reductive group G. We show that some basic facts on symmetric spaces lead to a Cartesian square in Galois cohomology. As an application we deduce our recent result on Lie algebras of type E_6 coming from Tits construction.

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