Let $E$ be an algebraically closed field of characteristic 0 which is either the complex field or a complete ultrametric field $K$. We consider the composition of meromorphic functions $h \circ f$ where $h$ is meromorphic in all $E$ and $f$ is meromorphic either in $E$ or in an open disk of $K$. We then look for a condition on $h$ in order that if 2 similar functions $f, g$ satisfy $h \circ f(a_m) = h \circ g(a_m)$ where $(a_m)$ is a bounded sequence satisfying certain condition, this implies $f = g$. Particularly we generalize to meromorphic functions previous results on polynomials of uniqueness. The condition on $h$ involves the zeros $(c_n)$ of $h'$ and the values $h(c_n)$ but is weaker than this introduced by H.Fujimoto (injectivity on the set of zeros of $h'$). Results on p-adic functions have applications to rational functions in any field of characteristic 0. (Received September 19, 2005)