Several questions came to my mind.
a) Are you identifying pions and kaons from mc? Have you checked that they are primaries? And are yiou sure the the mccorrelation is done properly? (i.e., you could have misplaced trees, in particular if you are summing upo files)
b) Have you applied a selection around D mass? To take away bad combinations with bad momenta
c) Why you assume the ndf is 1? I think at this stage one should not use any chi2 cut, considering that we have to understand the errors before.