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Ian M Aberbach* (aberbachi@missouri.edu), Department of Mathematics, University of Missouri, Columbia, MO 65211. *Observations on the deformation of F-injectivity*. Preliminary report.

Recall that a local ring R of positive prime characteristic is F-injective if the Frobenius map induces an injection on all the local cohomology modules of R with respect to the maximal ideal. In a recent paper of Horiuchi, Miller, and Shimomoto, it was shown that if R has perfect residue field, x is a nonzerodivisor, R/xR has finite local cohomology, and R/xR is F-injective, then R is F-injective (i.e., under these conditions, the condition of being F-injective deforms). We explore some methods which may allow more general results on deformation of F-injectivity (still in the case of perfect residue field). (Received August 13, 2015)