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Let R be a local ring. An ideal I is *quasi-complete intersection* if the homology of the Koszul complex E on a generating set of I is free as a module over $S = R/I$, and the canonical map of graded S -algebras $\wedge^S H_1(E) \rightarrow H(E)$ is bijective.

We show that several basic invariants of R determine those of S by the same formulas that hold in the particular case when I is generated by a regular sequence. We conclude that, under some additional hypothesis, R and S are equally far from being Cohen-Macaulay, Gorenstein, or complete intersection. (Received September 14, 2010)