ERRATUM FOR "LOCAL RINGS OF BOUNDED COHEN-MACAULAY TYPE"

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In the proof of Theorem 1.5, after display (1.5.3), Cases 1 and 2 should be replaced by:

Case 1: γ is not a unit (whence β is a unit). Consider the subring $A := V[y+z] \subset R$. We claim that A is a local ring with maximal ideal $\mathfrak{m}_A = Ax + A(y+z)$. To see this, let $f \in A - (Ax + A(y+z))$. Using the relation $(y+z)^3 = x\beta((y+z)^2$, we can write $f = u + v(y+z) + w(y+z)^2$ with $u, v, w \in V$. Then u is a unit of V, and it follows that f is a unit of R. Since R is integral over A, f is a unit of A.

We have $xz(1-\gamma\beta^{-1}) = xz - (\beta^{-1}y^2 - xy) = xz + xy - \beta^{-1}y^2 = x(y+z) - \beta^{-1}(y+z)^2$. Therefore $xz \in \mathfrak{m}_A$, and it follows that $xy \in \mathfrak{m}_A$ as well. Therefore R is a finite birational extension of A. Since $y(y+z) = (y+z)^2$ and $z(y+z) = 0$ we see that y and z are in $\operatorname{End}_A(\mathfrak{m}_A)$. Since $(\operatorname{End}_A(\mathfrak{m}_A))/A$ is simple (as A is Gorenstein) it follows that $R = \operatorname{End}_A(\mathfrak{m}_A)$.

Case 2: γ is a unit. We put $A := V[y] \subset R$. Then A is a local ring with maximal ideal $\mathfrak{m}_A := Ax + Ay$. (The relevant relation this time is $y^3 = x\beta y^2$.)

We have $xz = \gamma^{-1}y^2 - \gamma^{-1}\beta xy \in \mathfrak{m}_A$. As in Case 1, we conclude that $R = \operatorname{End}_A(\mathfrak{m}_A)$.