$a \in K^{p,q}$ s.t $\delta a = 0$ $d(a + \delta K^{p,q-1}) \subset \delta K^{p+1,q-1}$
$\Rightarrow$ $da \in \delta K^{p+1,q-1}$.

$$'E_1^{p,q} = \frac{\ker \delta}{\operatorname{im} \delta} \xrightarrow{d} {'E_1^{p+1,q}}$$

$$\Rightarrow \quad \operatorname{im} d = \frac{d(\ker \delta) + \delta(K^{p,q-1})}{\delta(K^{p,q-1})}$$

$$\ker d = \frac{\{a \in \ker \delta ;\ da \in \delta(K^{p+1,q-1})\} + \delta(K^{p,q-1})}{\delta(K^{p,q-1})}$$

$\Rightarrow$ But since $\delta^2 = 0$ and $d\delta + \delta d = 0$,

$$\delta(K^{p,q-1}) \subset \{a \in \ker\delta : da \in \delta(K^{p+1,q-1})\}.$$

$$\Rightarrow \quad \frac{\ker d}{\operatorname{im} d} = \frac{\{a \in \ker \delta : da \in \delta(K^{p+1,q-1})\}}{d(\ker\delta) + \delta(K^{p,q-1})} = {'E_2^{p,q}}.$$

Thus $\delta K^{p,q-1} + (d K^{p-1,q}) \cap \ker \delta$ must be corrected into $\delta K^{p,q-1} + d \ \ker \delta^{p-1,q}$, for by the relation $\delta d + d\delta = 0$,

$$\delta K^{p,q-1} + d \ \operatorname{Ker} \delta^{p-1,q} \subset \delta K^{p,q-1} + (d K^{p-1,q}) \cap \ker \delta$$

but we can not conclude

$$\delta K^{p,q-1} + (d K^{p-1,q}) \cap \ker \delta \subset \delta K^{p,q-1} + d \ \operatorname{Ker} \delta^{p-1,q}.$$

Examples.

If M is a complex manifold and

$$\begin{cases} K^{p,q} = A^{p,q}(M), \\ d = \partial \text{ and } \delta = \bar\partial, \end{cases}$$