and so we obtain $'E_1^{p,q} \cong {}'E_2^{p,q} \cong \cdots \cong {}'E_\infty^{p,q}$.
By the result in the proof of Proposition on P442, for r sufficiently large

$$E_r^{p,q} \cong \frac{F^p H_{DR}^{p+q}(M)}{F^{p+1} H_{DR}^{p+q}(M)} \quad \cdots \quad (*)$$

Note that since $'F^p A^n(M)$ means "n-forms having at least p-dz's, if $p \geq n+1$, then $'F^p A^n(M) = 0$ which implies that $'F^p H_{DR}^{p+q}(M) = 0$ if $p \geq n+1$.
By $(*)$, since $'F^p H_{DR}^{p+q}(M)$ is $\mathbb{C}$-free abelian group, and $'E_1 \cong \cdots \cong {}'E_\infty$.

$$0 \longrightarrow F^{p+1} H_{DR}^{p+q}(M) \longrightarrow F^p H_{DR}^{p+q}(M) \longrightarrow E_r^{p,q} \longrightarrow 0$$

and

$$F^p H_{DR}^{p+q}(M) \cong E_r^{p,q} \oplus F^{p+1} H_{DR}^{p+q}(M).$$

$\Rightarrow$

$$'F^p H_{DR}^n(M) \cong {}'E_r^{p,n-p} \oplus {}'F^{p+1} H_{DR}^n(M) \cong {}'E_r^{p,n-p} \oplus {}'E_r^{p+1,n-p-1} \oplus {}'F^{p+2} H_{DR}^n(M)$$

$$\cong \cdots \cong {}'E_r^{p,n-p} \oplus {}'E_r^{p+1,n-(p+1)} \oplus \cdots \oplus {}'E_r^{n,0} \oplus {}'F^{n+1} H_{DR}^n(M)$$

$$\cong {}'E_r^{p,n-p} \oplus \cdots \oplus {}'E_r^{n,0} \oplus 0 \cong H_{\bar\partial}^{p,n-p}(M) \oplus \cdots \oplus H_{\bar\partial}^{n,0}(M)$$

$$\cong H^{p,n-p}(M) \oplus \cdots \oplus H^{n,0}(M).$$

∎

If M is compact but not Kähler, it may happen that $'E_1 \neq {}'E_2$, but no example seems to be known where $'E_2 \neq {}'E_\infty$. An example of $'E_1 \neq {}'E_2$ is provided by the Iwasawa manifold

$$M = \frac{G}{\Gamma},$$

where G is the Lie group of all complex matrices

$$g = \begin{bmatrix} 1 & a & b \\ 0 & 1 & c \\ 0 & 0 & 1 \end{bmatrix}$$