$V' \subset U$. $\Rightarrow$ Since f is irreducible, f can not divide in some nbd V'' of q, $\cdot$ $V'' \subset V' \subset U$.
$\Rightarrow$ $f^a h = g$ in some nbd of p.
$\Rightarrow$ This prove K is open.
$\Rightarrow$ Outside K, by using the same argument above, we can show K is closed. K is closed and open in the connected hypersurface V. $\Rightarrow$ $K = V$. //

Note that for $g.h$ any holomorphic functions, V any irreducible hyper surface,

$$\mathrm{ord}_V(gh) = \mathrm{ord}_V(g) + \mathrm{ord}_V(h).$$

$\sqcap$ $p \in V$, in the local ring $\mathcal{O}_{n,p}$.

$$g = f^a k_1 \qquad h = f^b k_2$$

$f \nmid k_1$ $f \nmid k_2 \Rightarrow f \nmid k_1 k_2$

$\Rightarrow$ $gh = f^a k_1 f^b k_2 = f^{a+b} k_1 k_2$
$\Rightarrow$ This implies the $\mathrm{ord}_V(gh) = a+b$. //

Now let f be a meromorphic function on M, written locally as

$$f = \frac{g}{h}$$ with $g.h$ holomorphic and relatively prime.

For V an irreducible hyper surface, we define

$$\mathrm{ord}_V(f) = \mathrm{ord}_V(g) - \mathrm{ord}_V(h).$$

We usually say that f has a zero of order a along V if $\mathrm{ord}_V(f) = a > 0$, and f has a pole of order a along V if $\mathrm{order}_V(f) = -a < 0$.
We define the divisor (f) of the meromorphic function f by

$$(f) = \sum_V \mathrm{ord}_V(f) \cdot V.$$