ABSTRACT. In this article, we are concerned with the existence of positive radial solutions of the problem

$$(S^+) \begin{cases} -\Delta_p u = f(x, u, v) & \text{in } \Omega, \\ -\Delta_q v = g(x, u, v) & \text{in } \Omega, \\ u = v = 0 & \text{on } \partial\Omega, \end{cases}$$

where Ω is a ball in R^N and f, g are positive functions satisfying $f(x, 0, 0) = g(x, 0, 0) = 0$. Under some growth conditions, we show the existence of a positive radial solution of the problem S^+. We use traditional techniques of the topological degree theory. When $\Omega = R^N$, we give some sufficient conditions of nonexistence.