Concentration at sub-manifolds for an elliptic Dirichlet problem near high critical exponents

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 Let (Formula presented.) be an open bounded domain in (Formula presented.) with smooth boundary (Formula presented.). We consider the equation (Formula presented.), under zero Dirichlet boundary condition, where (Formula presented.) is a small positive parameter. We assume that there is a (Formula presented.) -dimensional closed, embedded minimal sub-manifold (Formula presented.) of (Formula presented.), which is non-degenerate, and along which a certain weighted average of sectional curvatures of (Formula presented.) is negative. Under these assumptions, we prove existence of a sequence (Formula presented.) and a solution (Formula presented.) which concentrate along (Formula presented.), as (Formula presented.), in the sense that (Formula presented.) where (Formula presented.) stands for the Dirac measure supported on (Formula presented.) and (Formula presented.) is an explicit positive constant.