Based on the theory of endoscopy, Arthur classified the automorphic discrete spectrum of quasi-split classical groups up to global Arthur packets parametrized by Arthur parameters. Towards studying representations in each Arthur packet, a natural question one may ask is that whether a given Arthur packet has cuspidal representations or not. In this talk, I will introduce some recent progress on this aspect, which is based on relations between the structure of Fourier coefficients of automorphic forms in an Arthur packet and the structure of the corresponding Arthur parameter. This work is joint with Dihua Jiang. (Received September 17, 2015)