Purpose: Evaluation of Epiretinal membrane and vitreomacular traction syndrome with spectral domain High-Definition optical coherence tomography (SD-OCT) Methods: The authors described the type and extent of ERM, the contour of vitreomacular interface, the presence of intraretinal abnormalities and the integrity of the photoreceptor layers in four patients with EPM/VMTS and the correlation with VA. Results: SD-OCT improved the evaluation of ERM, offered a topographic reconstruction of the vitreomacular interface and improves the identification of retinal structures. Conclusions: The great advantage of SD-oct in the study of ERM or VMTS is allowing the visualization of early ERMs and/or posterior hyaloid traction causing inner retinal architectural changes. This allows for accurate diagnosis, timely intervention and better prognosis.