

Stepwise Approach to the Patient With Atypical or Asymmetric Retinal Hemorrhages		
Findings	Diagnostic Considerations	Basic Workup
Few microaneurysms or dot/blot retinal hemorrhages	<ul style="list-style-type: none"> trauma/vitreous detachment hypertensive retinopathy diabetic retinopathy retinal vein occlusion 	<ul style="list-style-type: none"> peripheral retinal exam lipid panel blood pressure complete blood count metabolic panel hemoglobin A_{1c}
<p>Above <i>plus</i>:</p> <ul style="list-style-type: none"> blot hemorrhages in midperiphery vascular tortuosity 	<p>Above <i>plus</i>:</p> <ul style="list-style-type: none"> monoclonal gammopathy ocular ischemic syndrome 	<p>Above <i>plus</i>:</p> <ul style="list-style-type: none"> protein electrophoresis carotid ultrasound echocardiogram
<p>Above <i>plus</i>:</p> <ul style="list-style-type: none"> arterial occlusions retinal neovascularization 	<p>Above <i>plus</i>:</p> <ul style="list-style-type: none"> syphilis lupus antiphospholipid syndrome APC mutation/factor V Leiden mutation protein C/S deficiency elevated homocysteine sickle cell/thalassemia 	<p>Above <i>plus</i>:</p> <ul style="list-style-type: none"> RPR/VDRL lupus anticoagulant antiphospholipid/anticardiolipin factor V Leiden mutation/APC resistance protein C/S level homocysteine level hemoglobin electrophoresis
Vitritis/retinitis with any/all of above	<p>Above <i>plus</i>:</p> <ul style="list-style-type: none"> vasculitis granulomatosis with polyangiitis, sarcoidosis HIV viral retinitis CNS lymphoma toxoplasma tuberculosis 	<p>Above <i>plus</i>:</p> <ul style="list-style-type: none"> ANCA ACE chest x-ray and/or chest CT HIV Western blot AC tap & PCR for herpes viruses/CMV MRI brain and lumbar puncture Toxoplasma IgM and IgG PPD/Quantiferon

ACRONYMS: AC: anterior chamber; ACE: angiotensin-converting enzyme; ANCA: antineutrophil cytoplasmic antibodies; APC: activated protein C; CMV: cytomegalovirus; CNS: central nervous system; CT: computed tomography; MRI: magnetic resonance imaging; PPD: purified protein derivative; PCR: polymerase chain reaction; RPR: rapid plasma reagin; VDRL: Venereal Disease Research Laboratory test.