PATHOLOGY OF THROMBOTIC MICROANGIOPATHY

Terry Cook
Imperial College London
Disclosure of Interests

• GlaxoSmithKline - consultancy
• Biogen Idec - consultancy
• Achillion Pharmaceuticals - consultancy
TMA - morphology

Range of morphological changes in the kidney vasculature in response to endothelial injury

May involve glomeruli, arterioles and arteries
Glomeruli – acute lesions
Glomeruli – acute lesions
Glomeruli- chronic lesions
Glomeruli- chronic lesions
Arterioles
Arteries
1. Nomenclature of TMA: is it a problem that TMA encompasses changes that are not 'thrombotic' (e.g., glomerular subendothelial expansion, mesangiolysis and myxoid arterial intimal thickening)?
• 2. What are the morphological differences between TMAs of different etiology?
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- Shiga toxin associated HUS shows only glomerular involvement
- TTP has platelet rich thrombi
- TMA due to malignant hypertension shows predominant vascular involvement
- Does C5b-9 staining differentiate causes due to primary complement activation?
• 3. What is the distinction between TMA associated with malignant hypertension as opposed to TMA due to other causes with secondary hypertension?
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- Possibly more chronic vascular changes in TMA due to malignant hypertension
- Can C5b-9 staining help?
• 4. What are the morphological features of acute and chronic TMA lesions?
• Is there an entity of chronic TMA due to complement abnormalities that leads to chronic renal impairment without acute episodes?