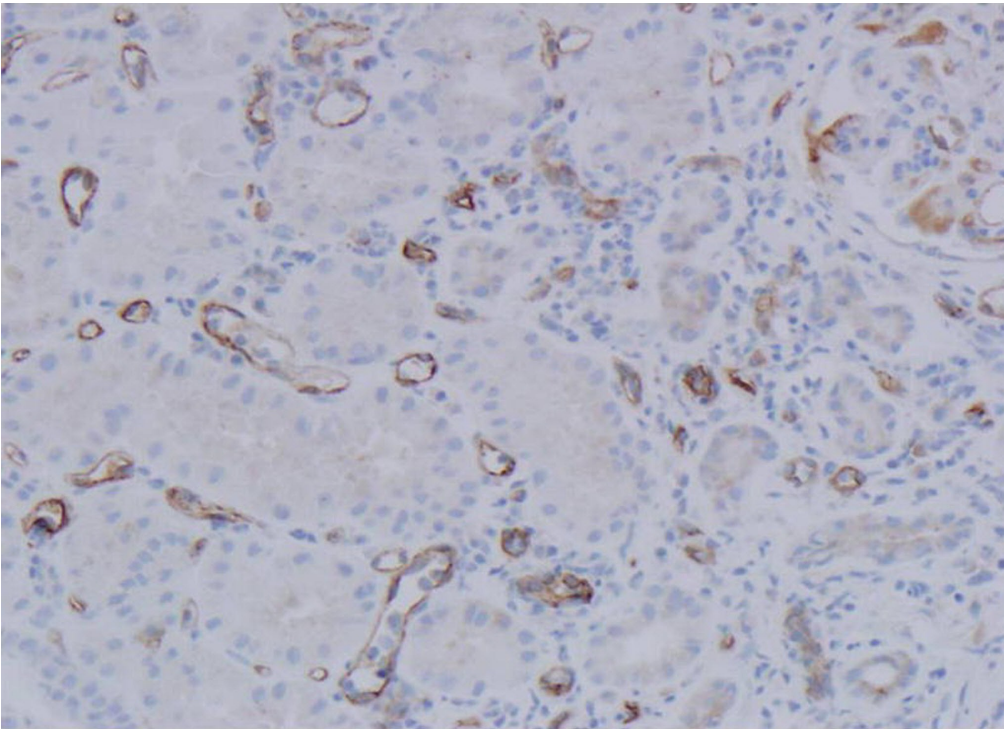


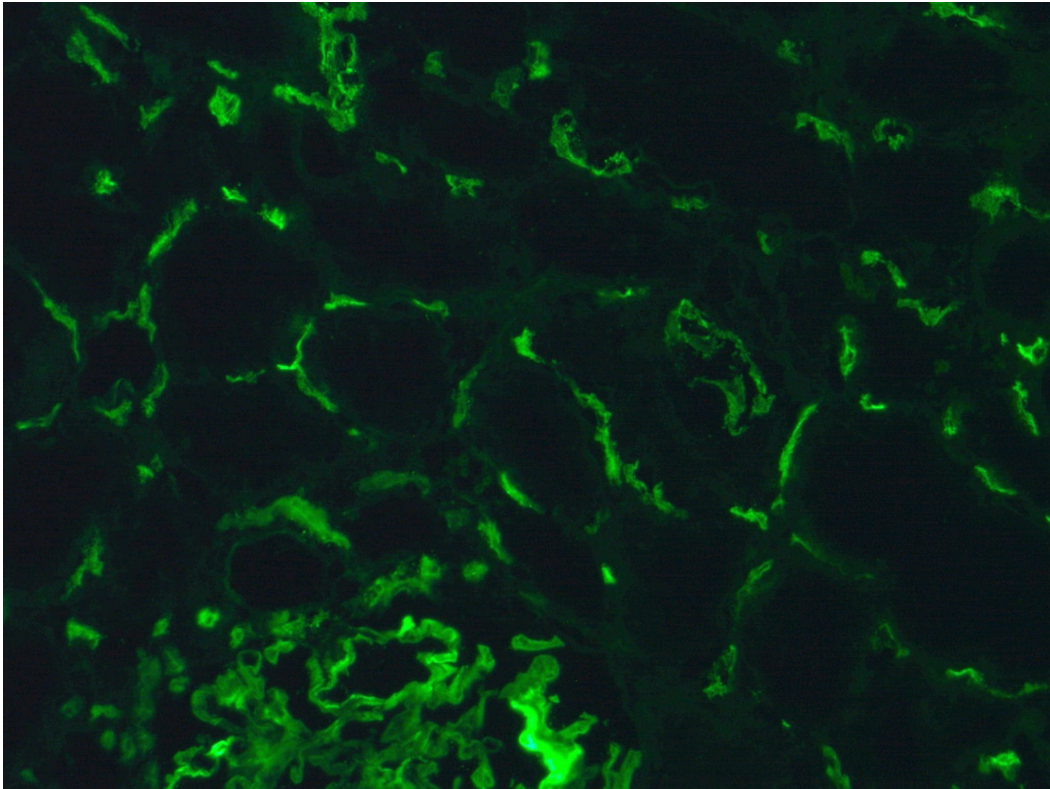
Renal Transplantation Pathology



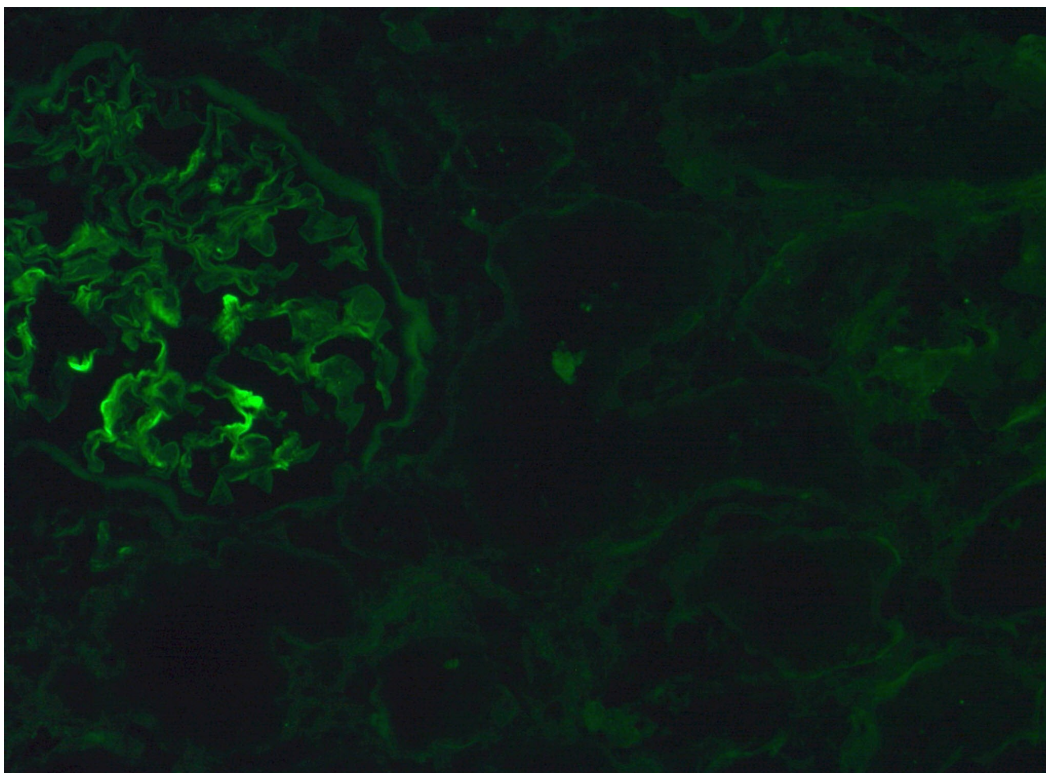
P 11-1 The legend of Saint Cosmas and Damian. A 14th century painting of the two saints transplanting the leg of a recently dead Ethiopian patient to a living Roman patient, assisted by three Angels.



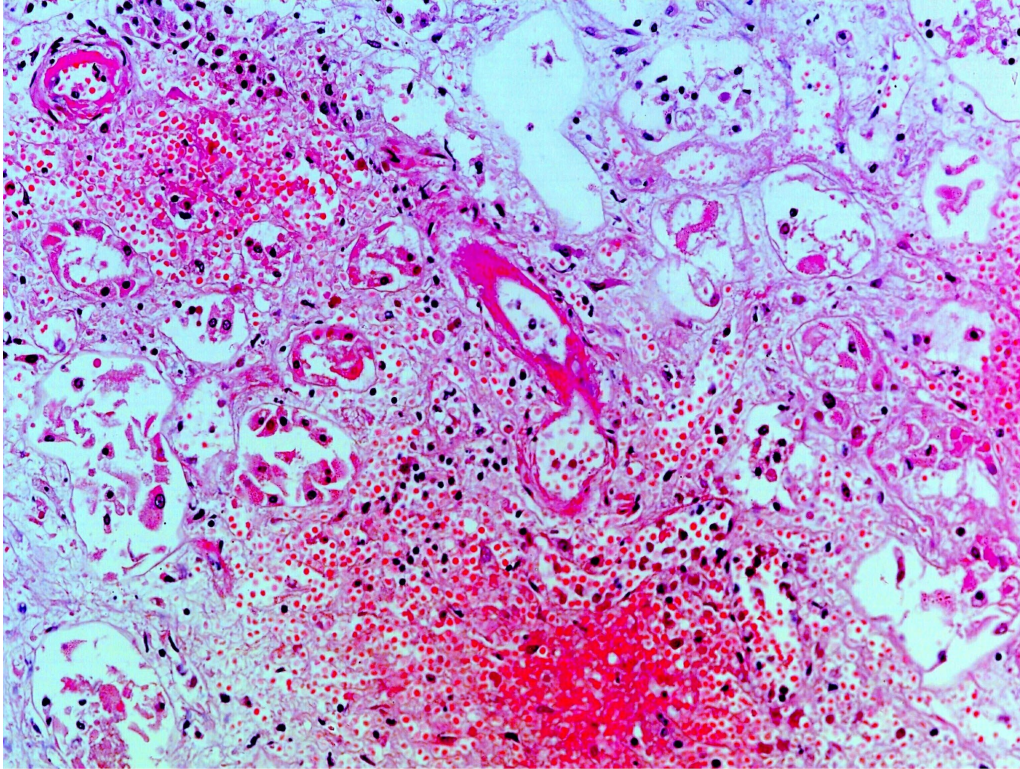
P 11-2 Renal transplant, acute rejection, C4d immunoreactivity (DB chromogen). A positive reaction to the complement C4d is the most accurate method to detect immune complexes in tissue hence confirms humeral immune reaction.



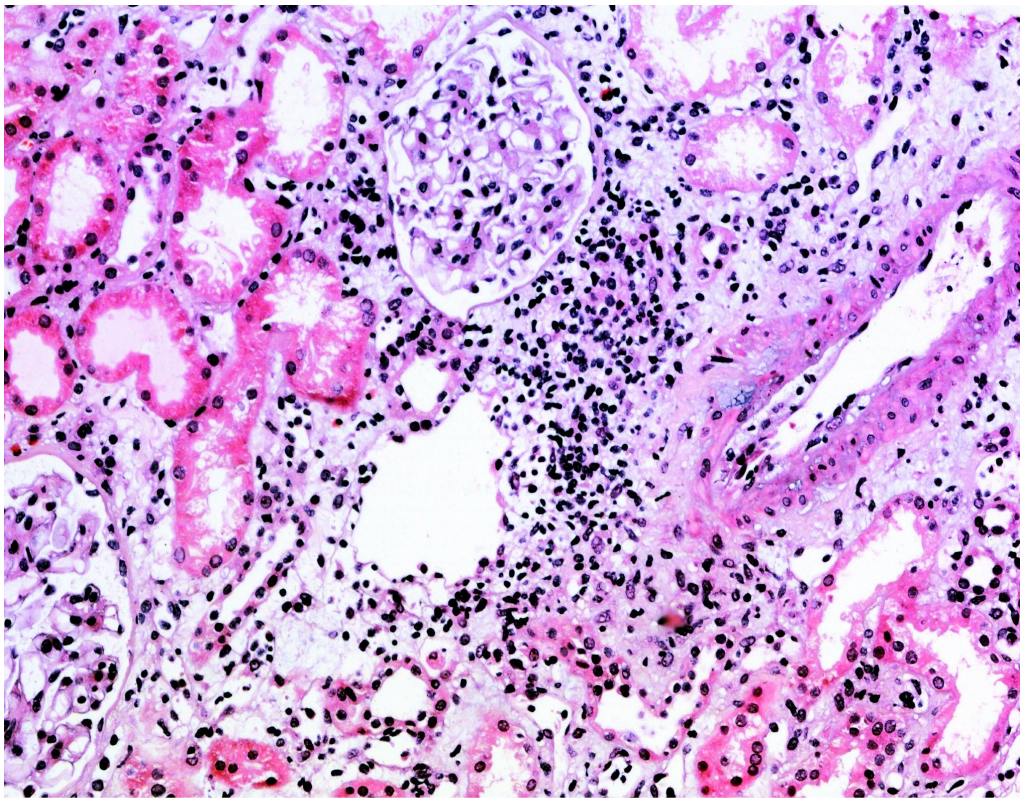
P 11-3 Renal transplant, acute rejection, C4d positive by fluorescent microscopy showing more than 50% of tubules are positive confirming the humeral reaction.



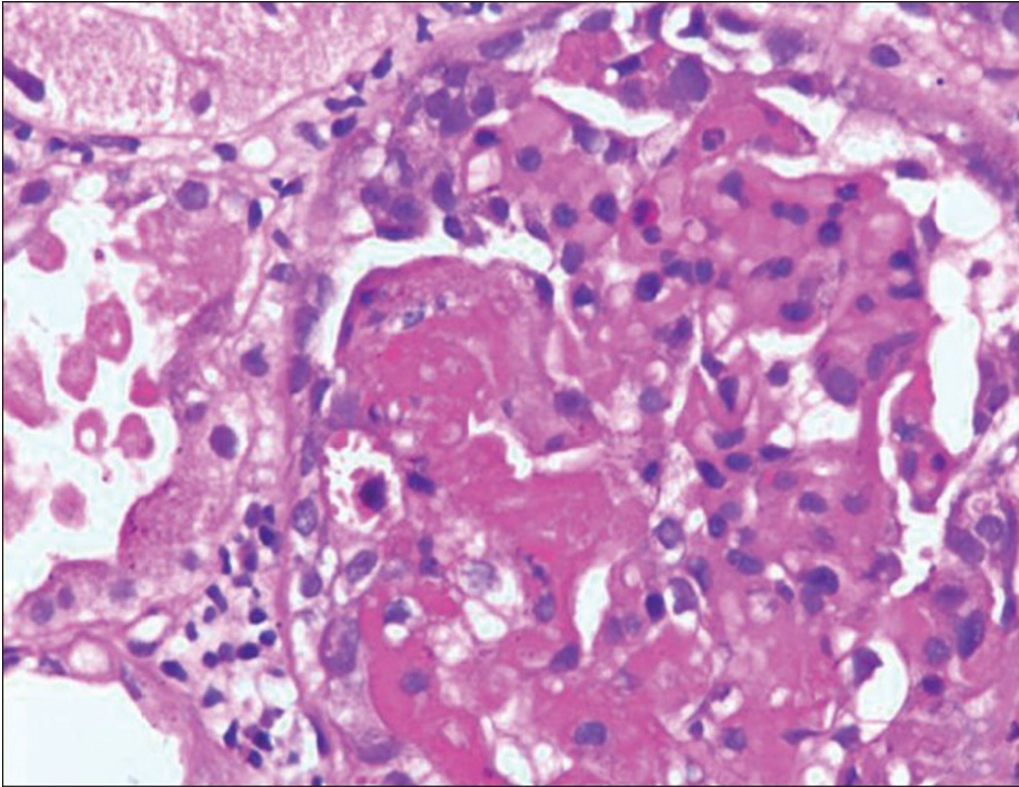
P 11-4 Renal transplant, acute rejection, C4d positive by fluorescent microscopy. The reaction affects mainly a glomerulus and hence confirms the deposits of immune complex in this structure.



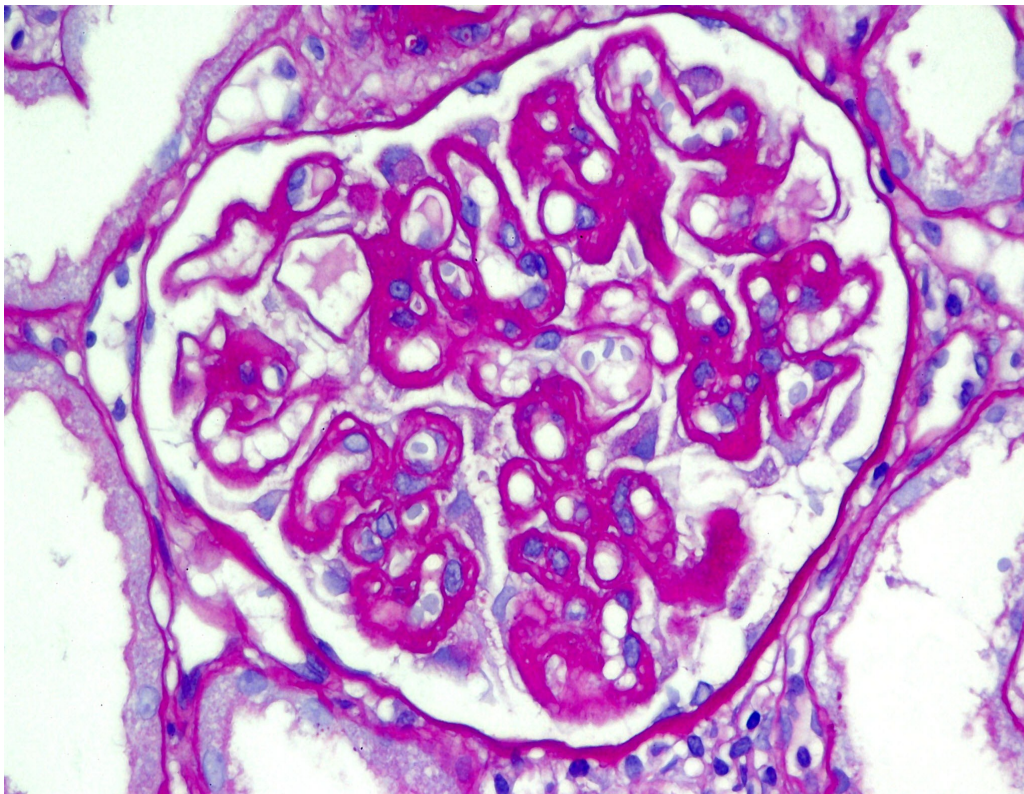
P 11-5 Renal transplant, hyperacute rejection, (H and E stain). This complication develops immediately at operation due to previous sensitization. The histologic changes are mainly vascular (fibrinoid necrosis) with interstitial haemorrhage.



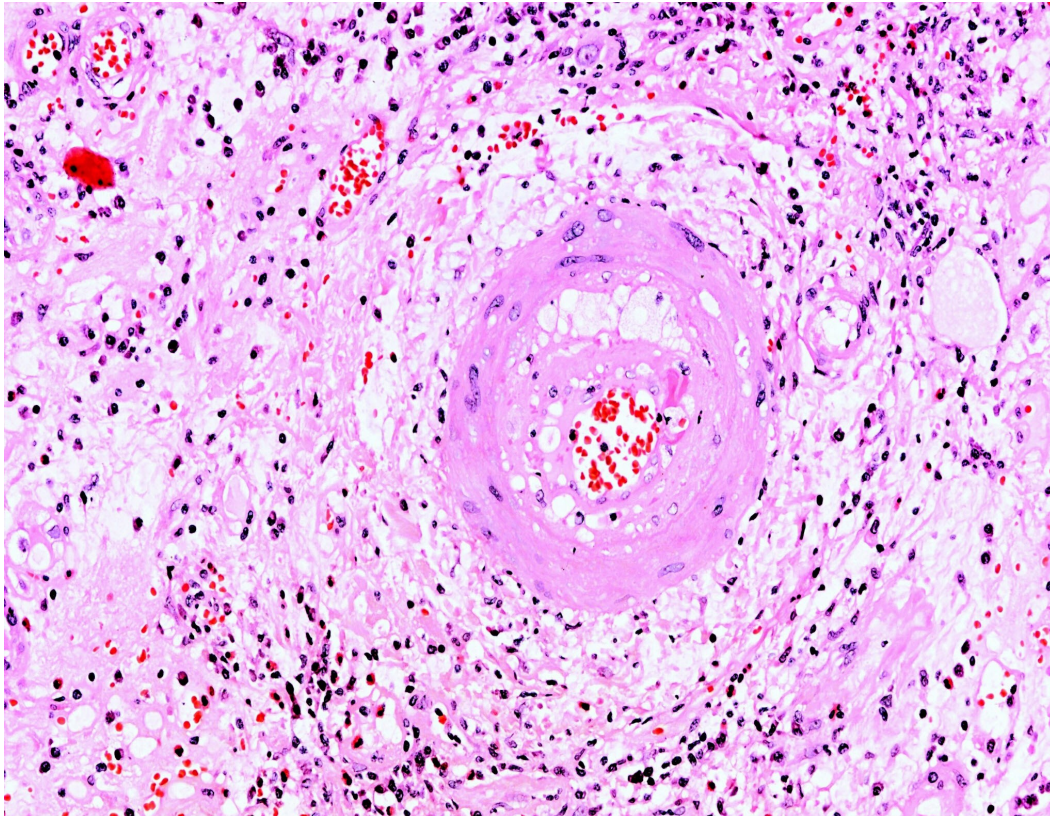
P 11-6 Renal transplant, acute rejection (H and E). Histology is characterized by tubulitis and vasculitis (T-lymphocyte infiltrate, CD 8 +ve).



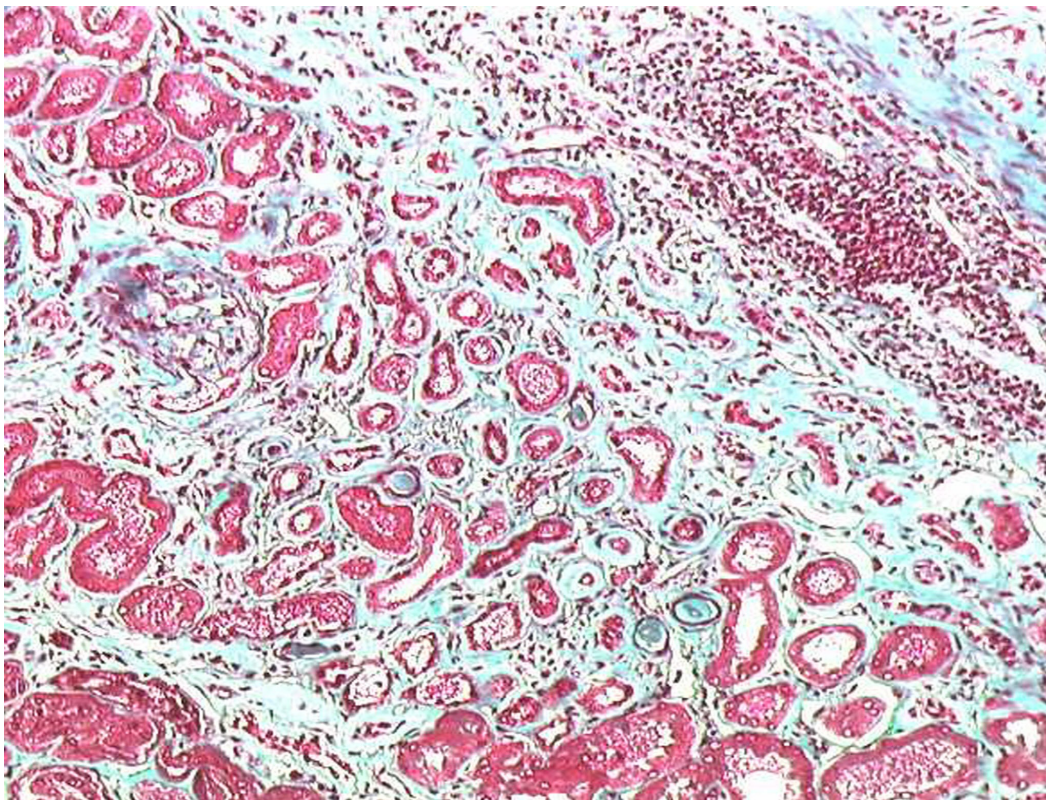
P 11-7 Renal transplant, chronic rejection (H and E). Glomerulopathy with hyaline thickening of basement membrane.



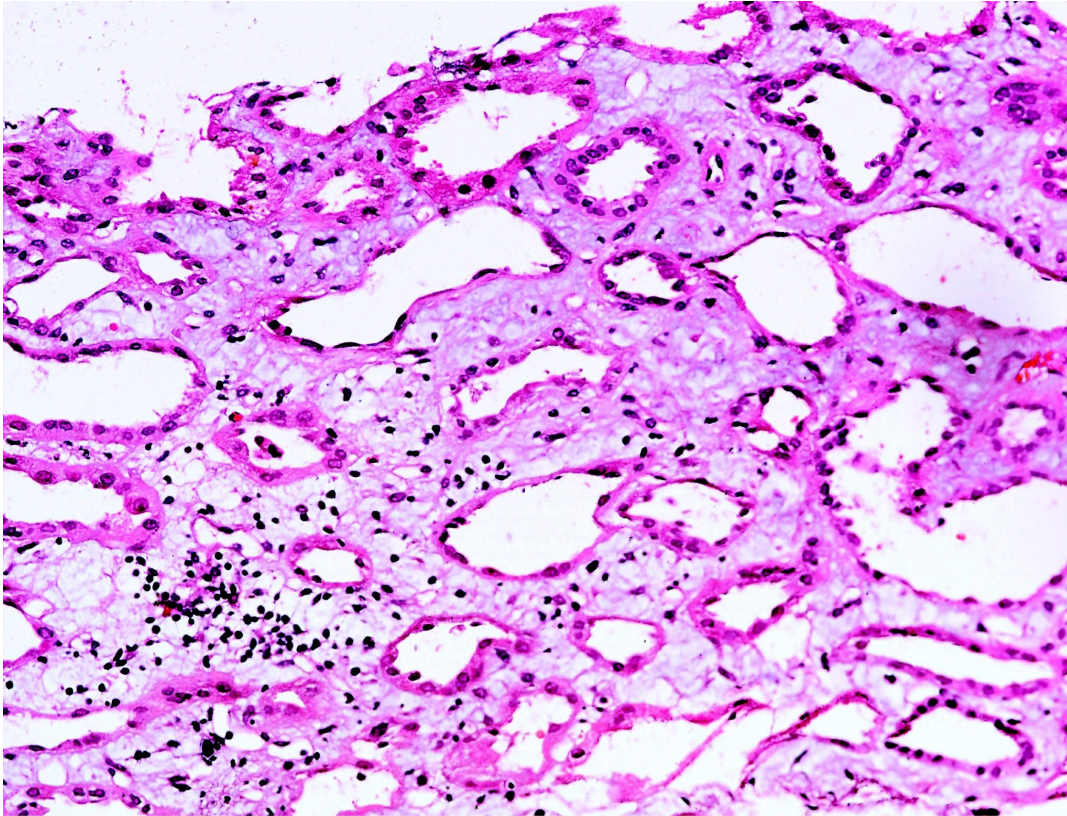
P 11-8 Renal transplant, chronic rejection (H and E). Glomerulopathy with hyaline thickening of basement membrane.



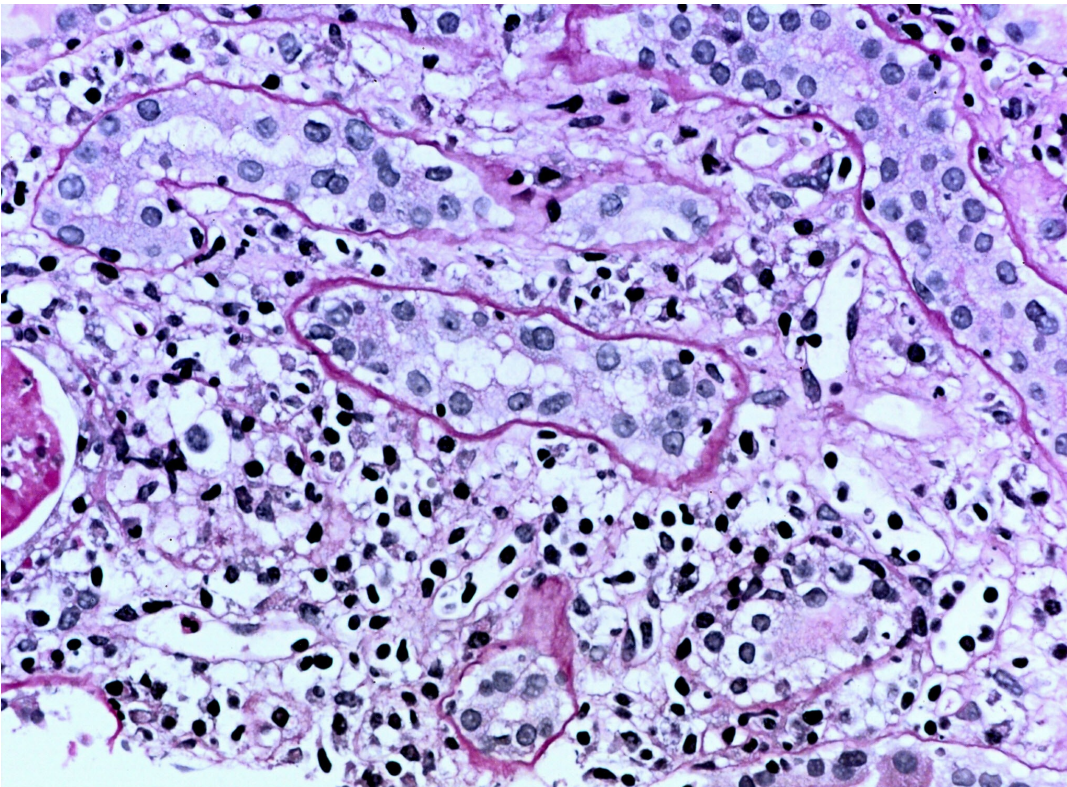
P 11-9 Renal transplant, chronic rejection (H and E). Showing vascular sclerosis.



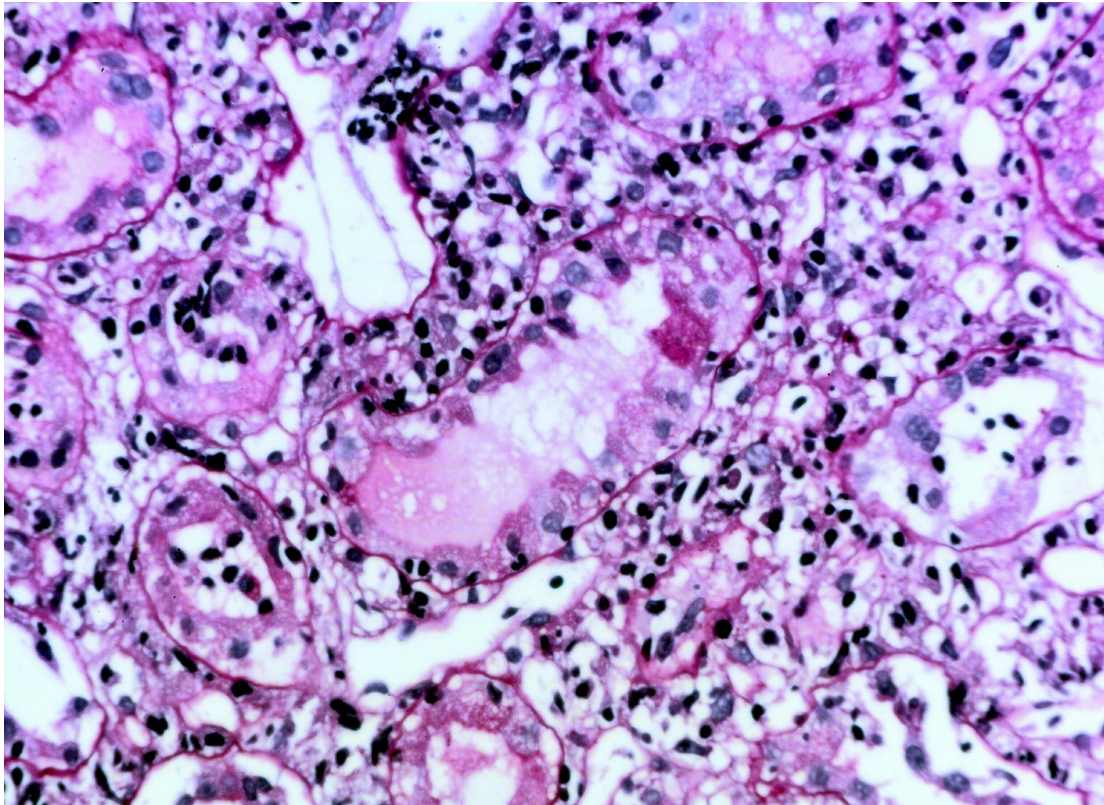
P 11-10 Renal transplant, chronic rejection, (Masson trichrome stain), showing interstitial fibrosis.



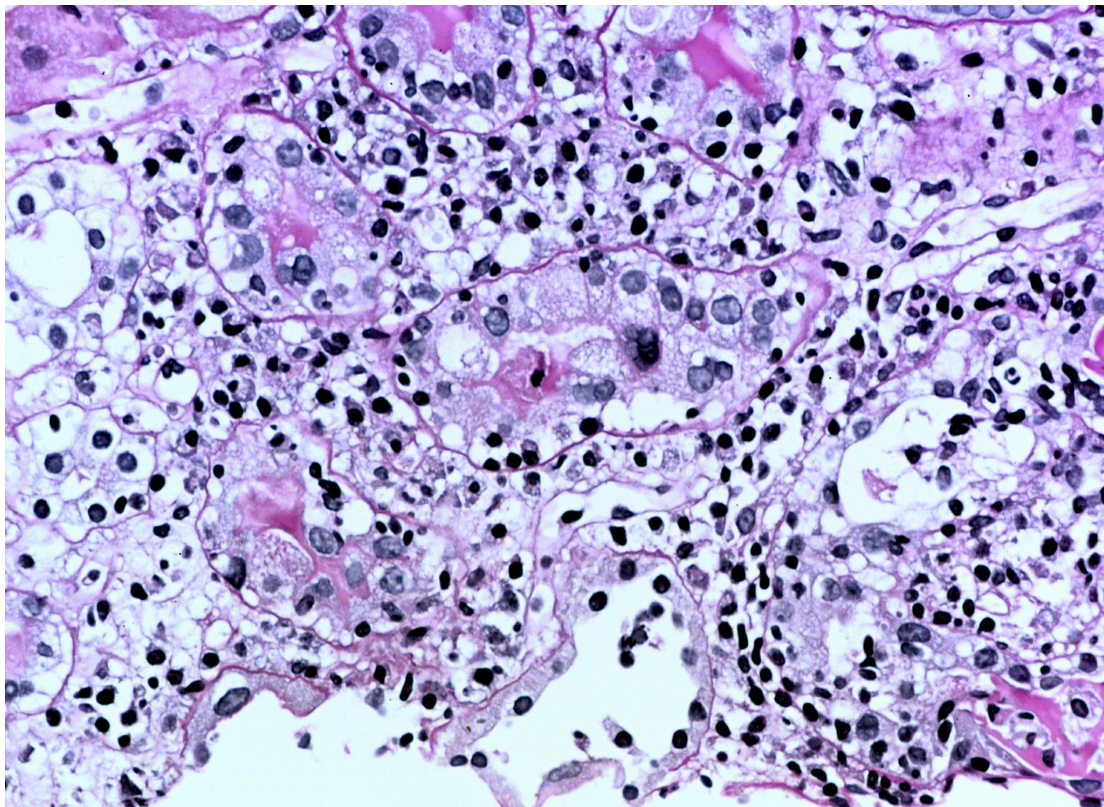
P 11-11 Renal transplant, chronic rejection, showing tubular atrophy.



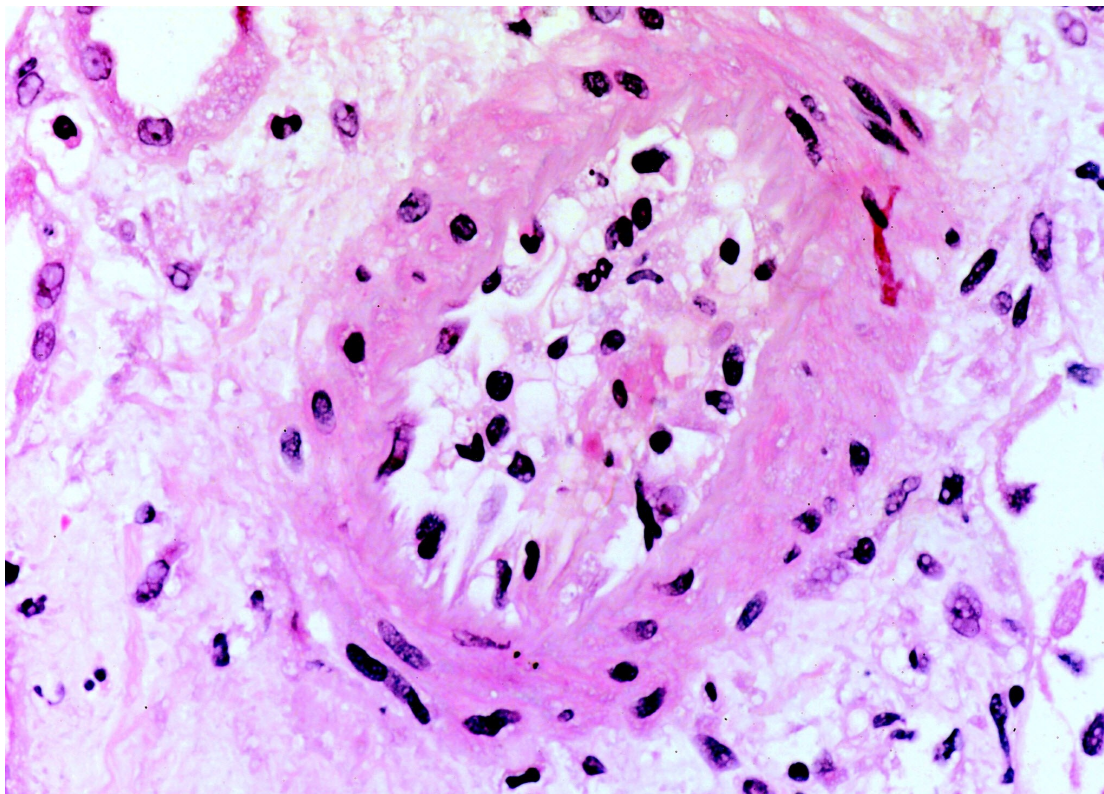
P 11-12 Renal transplant, borderline acute rejection (H and E). Interstitial inflammation (< 25%) and lymphocytes in tubules (1-4 cells).



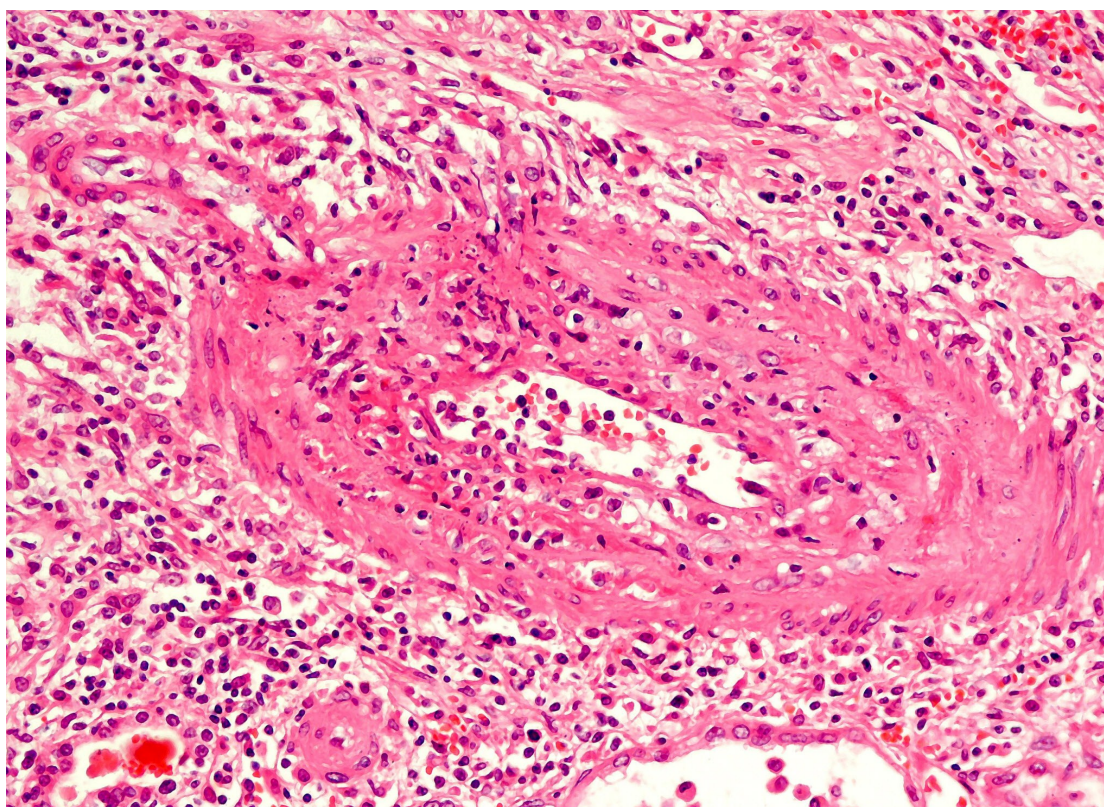
P 11-13 Renal transplant, acute rejection (ACR) lymphocyte grade IA (count <10).



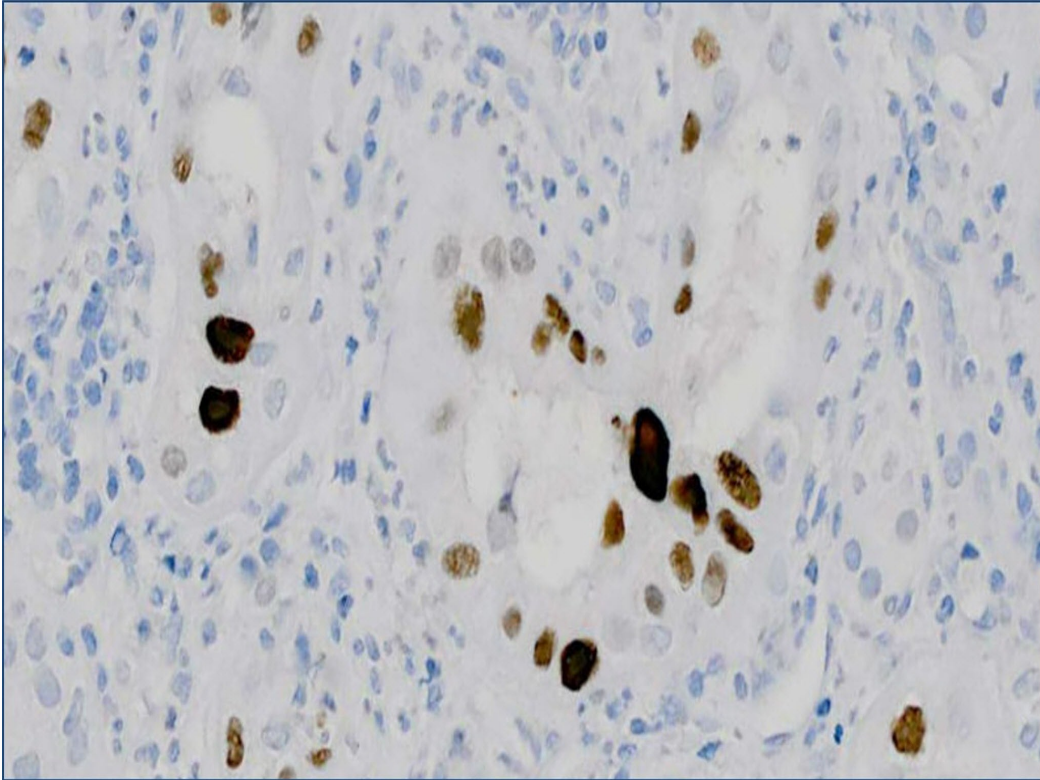
P 11-14 Renal transplant, acute rejection (ACR) lymphocyte grade IB (count >10).



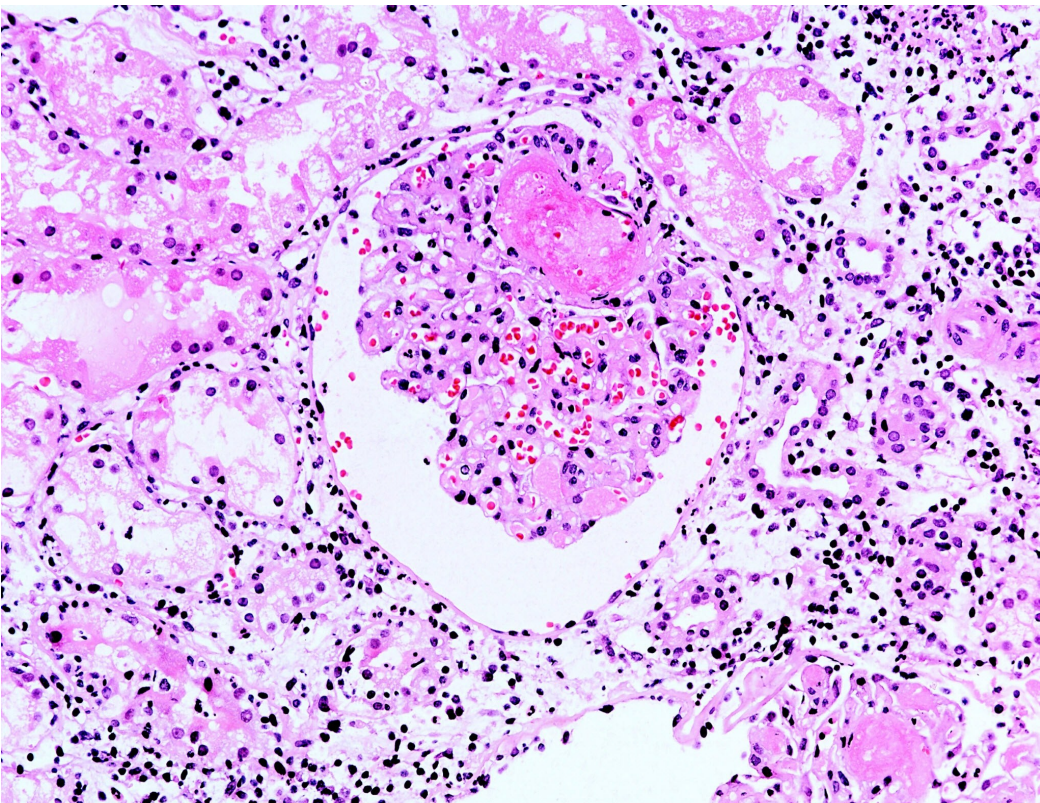
P 11-15 Renal transplant, acute rejection (ACR) lymphocyte grade IIB (Luminal vascular inflammation).



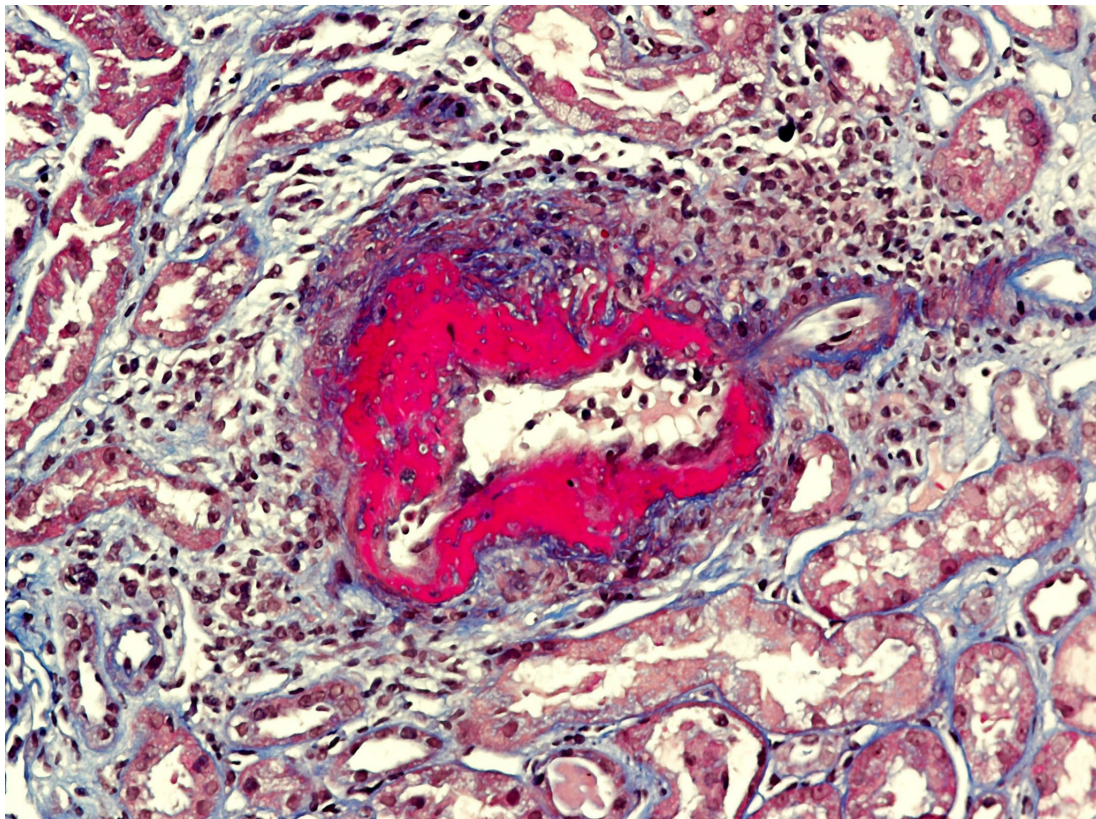
P 11-16 Renal transplant, acute rejection (ACR) lymphocyte grade III (Vascular transmural inflammation).



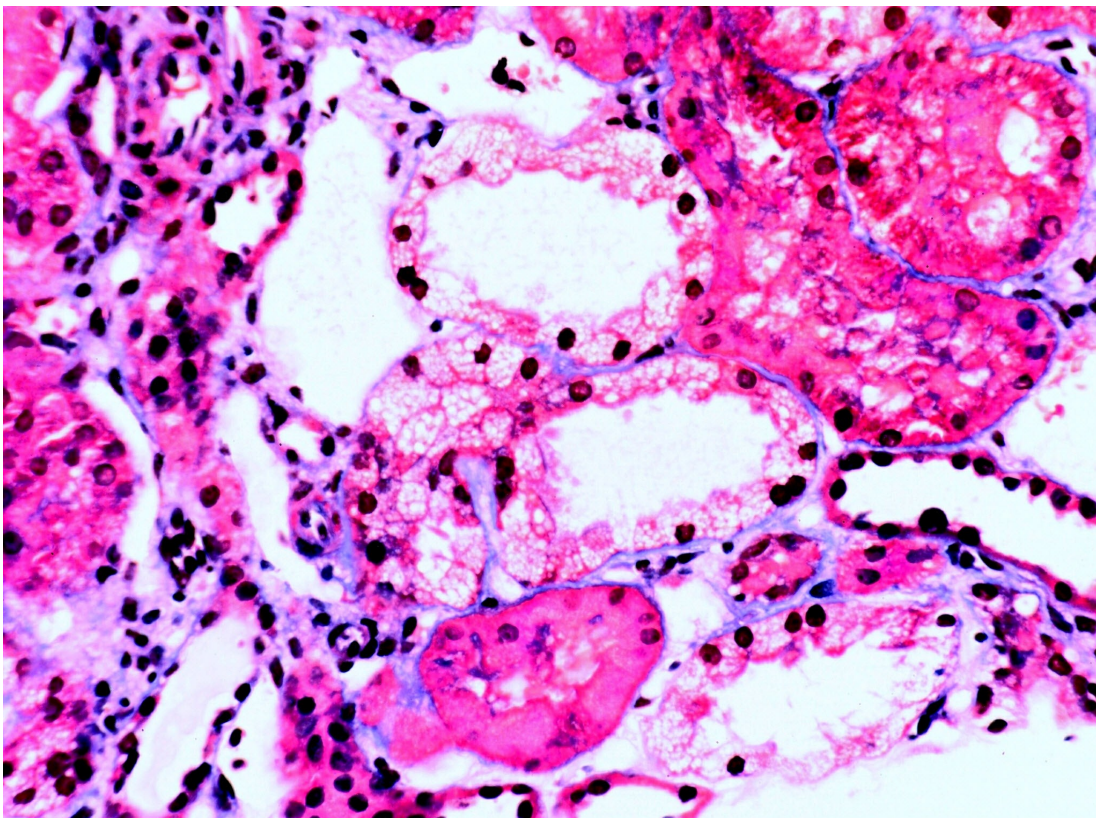
P 11-17 Renal transplant, BK polyoma virus infection (SV40 +ve. by immunohistochemistry). This results from activation of a latent infection by immunosuppression.



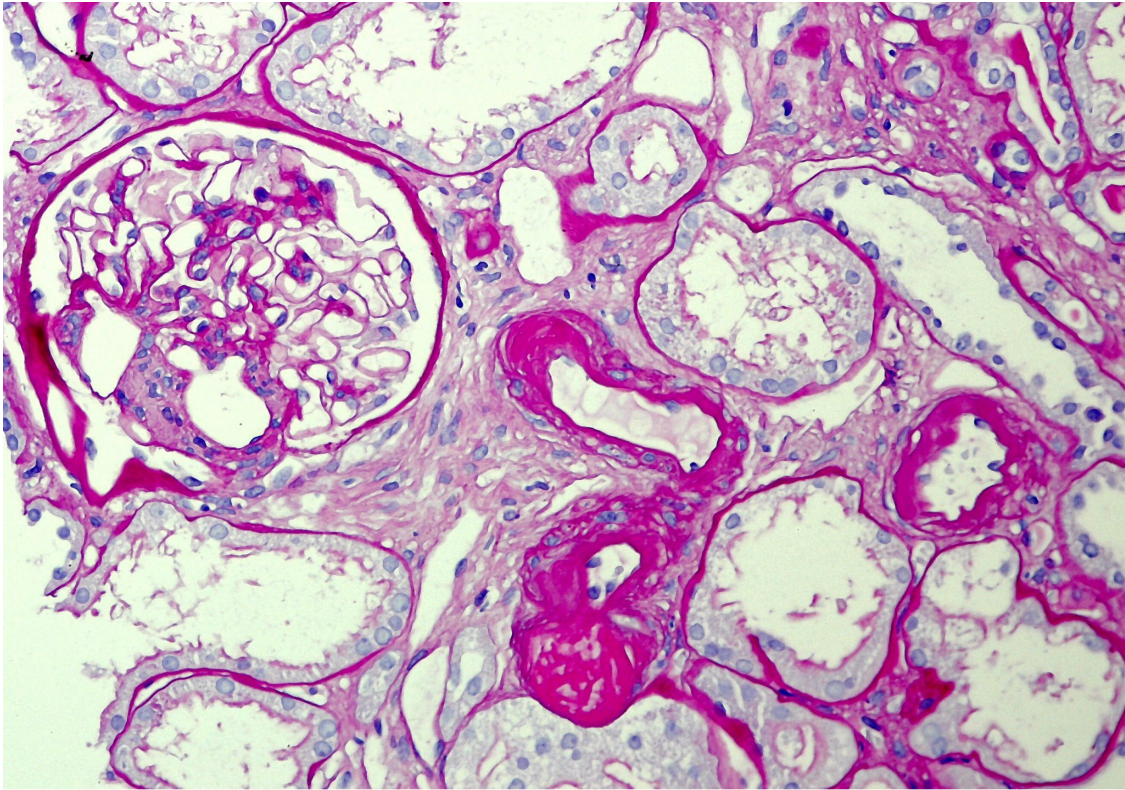
P 11-18 Renal transplant, acute drug nephrotoxicity showing thrombotic microangiopathy.



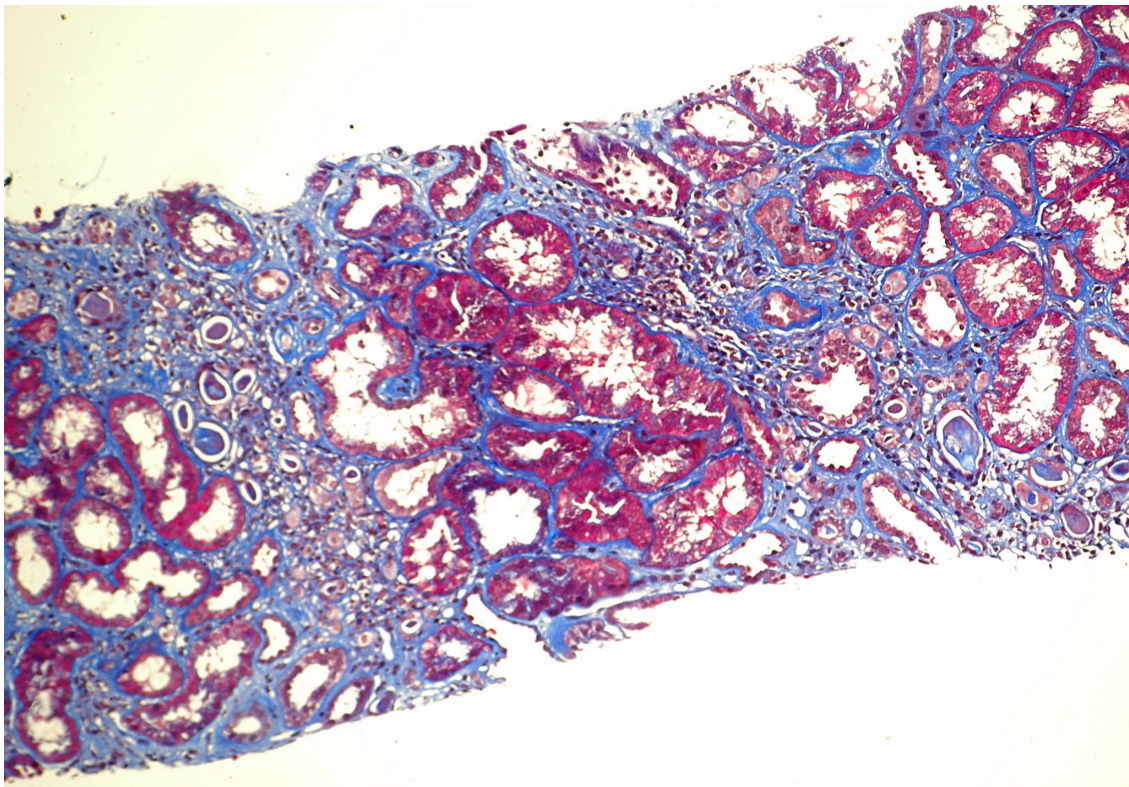
P 11-19 Renal transplant, drug nephrotoxicity showing fibrinoid necrosis.



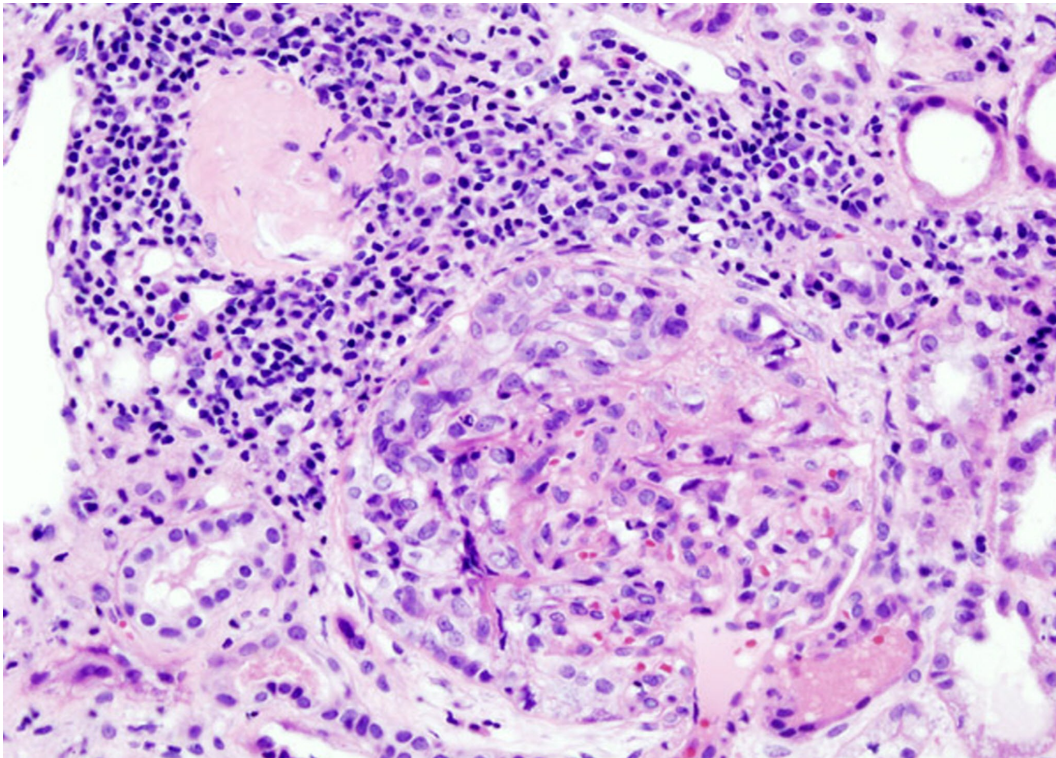
P 11-20 Renal transplant, drug cytotoxicity showing vacuolation of tubular epithelium.



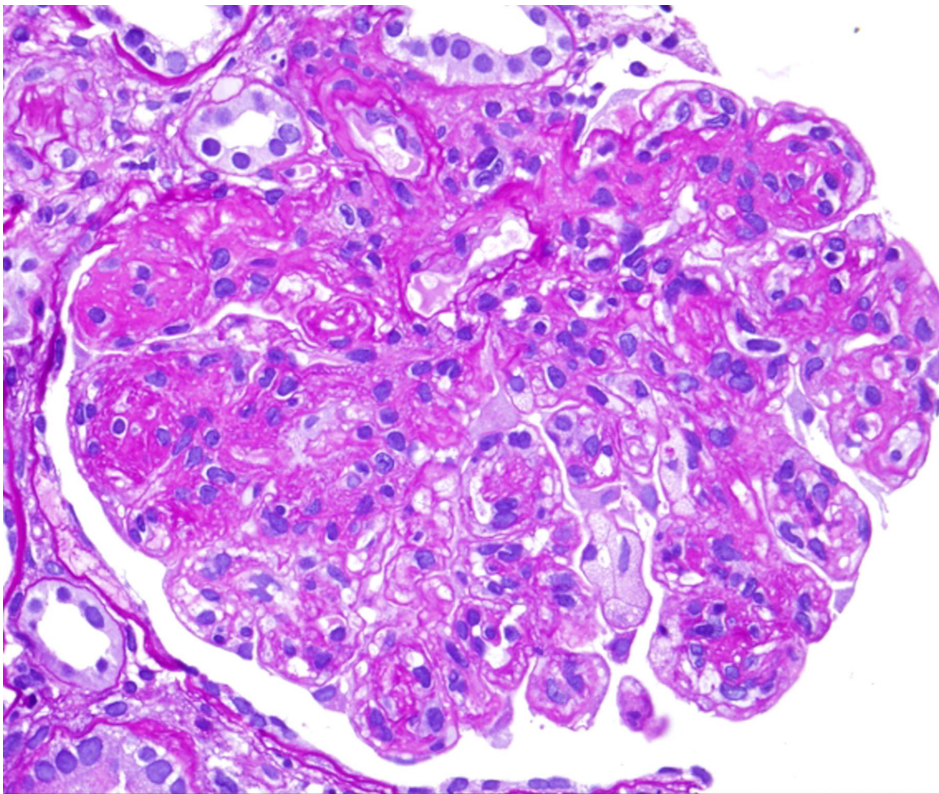
P 11-21 Renal transplant, chronic drug cytotoxicity showing vasculopathy with nodular hyaline deposits in the wall of arterioles.



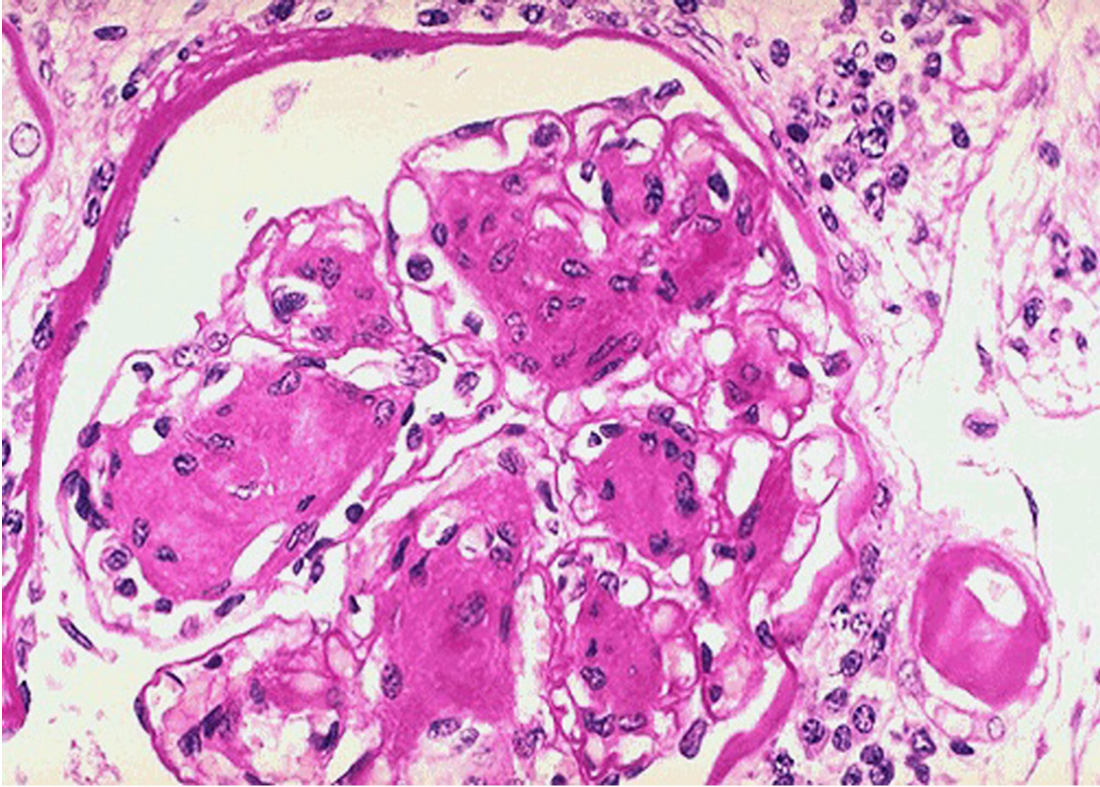
P 11-22 Renal transplant, chronic drug cytotoxicity, (Masson trichrome stain). Note the segmental distribution of fibrosis related to ischemic areas (skip fibrosis).



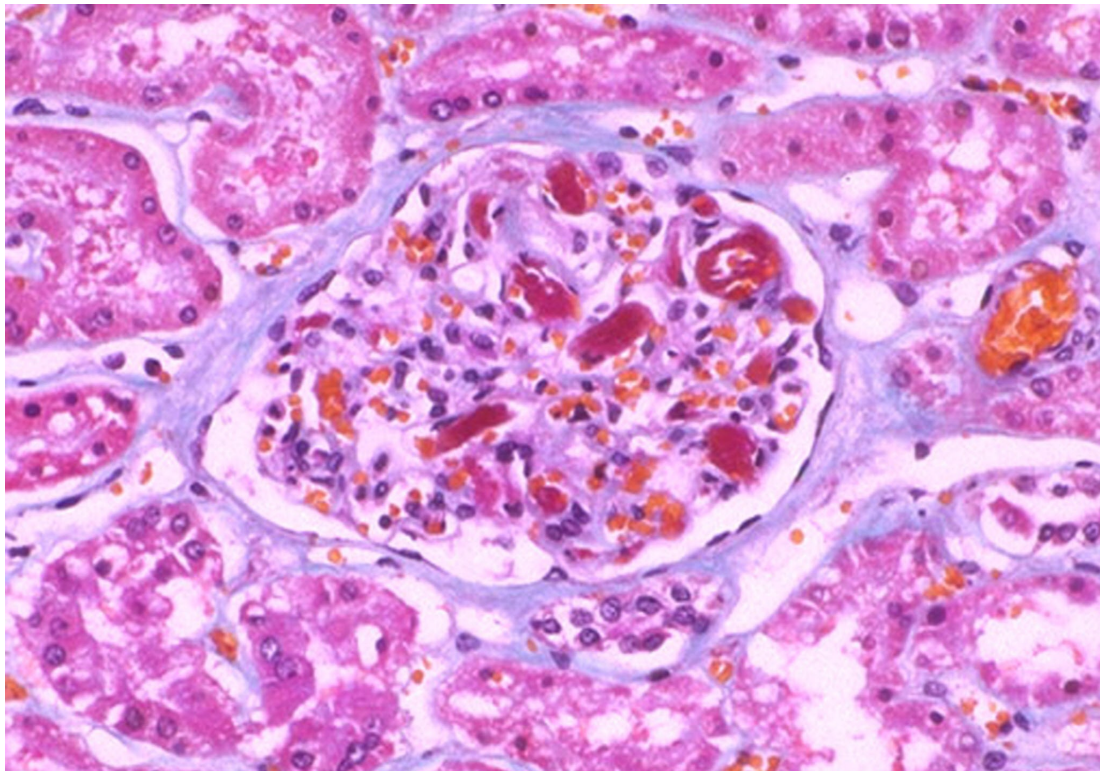
P 11-23 Renal transplant, rapidly progressive glomerulonephritis (RPGN) characterized histologically by glomerular crescent formation and rapid decline of glomerular filtration rate (at least 50%).



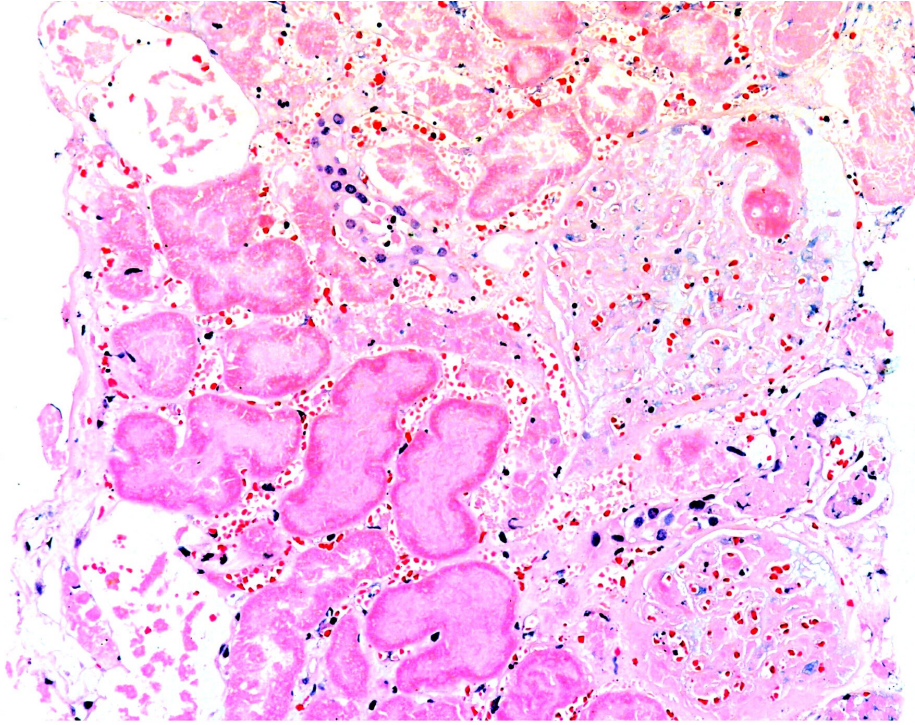
P 11-24 Renal transplant, C3 glomerulonephritis (dense deposit disease, DDD), showing dense deposits in glomeruli by complement C3.



P 11-25 Renal transplant, diabetic nephropathy, showing nodular hyaline deposits in glomeruli with loss of renal function (kimmelsteil- Wilson syndrome).



P 11-26 Renal transplant, hemolytic uremic syndrome (HUS). Common in children, following infection, characterized by a triad of hemolysis, thrombocytopenia and acute renal failure (fetal in 10 % of patients). Histology shows multiple glomerular thrombi.



P 11-27 Renal transplant, postoperative infarct. A rare complication of renal transplantation (only 1.4 %) due to thrombosis of renal artery, histology shows massive coagulative necrosis.
