Formation of the definitive kidney in *Macaca fascicularis* embryos was investigated using light and electron microscopy. Appearance of the definitive kidney at stage 14 was indicated by the ureteric bud invading the metanephrogenic blastema. Glomerular capillaries originate from the connective tissue that surrounds the developing renal vesicle. At 46–100 days gestational age the more developed glomeruli show thinning of the capillary endothelium, thickening of the basal membrane, and presence of pedicels, suggesting a capability of renal function.