

The morphogenesis of the foetal membranes and placenta of the root-rat *Tachyoryctes splendens* was studied by light microscopy. Implantation of the blastocyst is antimesometrial. The mode of implantation is secondary interstitial and the decidual reaction is similar to that in other rodents. Amniogenesis is by cavitation with a temporary open epamniotic cavity. Inversion of the yolk sac is complete but the disappearance of the parietal segment occurs relatively late. With the breakdown of both the decidua capsularis and parietalis, the yolk sac wall near the margins of the placenta becomes bathed in a pool of maternal blood and tissue debris resembling the haemophagous organ. The yolk sac villi are well vascularized. The allantoic cavity is persistent up to the limb bud stage. The definitive placenta is haemochorial and shows conspicuous endodermal sinuses or placental pits.