

南通大学实验动物中心标准操作规程

The Standard Operating Procedures for Laboratory Animal Center of NTU

动物实验伦理审查表

编号(No):

The Tab of Animal Experimental Ethical Inspection

S20221222-008

申请人填写的相关信息 (Information Of applicant)	申请单位(Name of organization): Department of Obstetrics and Gynecology, Affiliated Hospital of Nantong University、Medical School of Nantong University					
	主要申请人姓名 (Name of applicant):		学历 (Education):	技术职称 (Professional title):	江苏省培训记录卡编号 (No. of training card):	
	Yanhua Xu		Undergraduate	Attending doctor	220203299	
	项目名称(Title of project): MCC950 regulates the mechanism of vascular endothelial cell pyroptosis via NLRP3 in venous thrombosis of pregnant rats					
	实验目的(Aim of experiment): In this study, we established a venous thrombosis model in pregnant rats at different time and analyzed the mechanisms of vascular endothelial cell pyroptosis in thrombus formation and development.					
	实验动物情况	动物来源(Source of animal): Laboratory Animal Center of Nantong University				
		品种品系(Species or strain): Sprague Dawley (SD) rat				
		等级(Grade)	性别(Sex)	周龄(Week age)	体重(Body weight)	数量(Number)
		SPF	female	10	200-300	60
		申请日期(Application date):		批准日期(Approved date):		
2022 年 12 月 17 日		2022 年 12 月 22 日				
进驻日期(Entering date):		结束日期(Ending date):				
2020 年 10 月 05 日		2023 年 06 月 30 日				

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实验要点，包括动物分组、饲养条件、处置情况（如前期准备、手术过程和术后护理等）、观测指标、安乐死及尸体处理方式等(Key points: Animal grouping, breeding condition, experimental methods, observational index, euthanasia et. al):

动物分组(Animal grouping):

对照组	实验组1	实验组2	实验组3	实验组4	实验组5	实验组6
24	6	6;	6	6	6	6

动物处理(Materials and methods):

The feed is sterilized by Co60 ir-radiation and the drinking water is autoclaved. The feed and drinking water are free. 光周期: 12:12 h light-dark cycle 其它条件: Corn-cob bedding, autoclaved and replaced once a week and adjusted as appropriate. 手术及护理过程: (1) Routine sterile dressing on the experimental table and 75% alcohol wipe on the table for disinfection (2) Fasting for 12 h before surgery, no restriction on water intake. Anesthesia was induced in an isoflurane chamber (3-4%) and maintained with a 1-2% isoflurane mask. after anesthesia, the abdominal surgical area was disinfected with Anil iodine (3) The skin layer, fascia layer and muscle layer of the rat were opened one by one, and the branches of the inferior vena cava below the left renal vein to the level of the iliac vein were revealed and separated. Cover the upper and lower layers with pre-moistened warm saline gauze to keep the intestine and other abdominal organs moist. handling with caution and gentleness. (4) The experimental area below the left renal vein was first ligated one by one with sutures, and then the inferior vena cava was ligated at a point about 1 mm below the left renal vein. (5) After surgery, the rats were covered with a small fleece blanket to help them keep warm and rewarm, and the incision was given erythromycin ointment to prevent infection, and after awakening, they were fed in separate cages according to different groups and resumed normal diet and water. The rats in the sham-operated group were separated from the main trunk and branches of the inferior vena cava by the above-mentioned method, and only sutures were passed through them without ligating the vessels, and the rest of the treatment procedure was the same. 动物出现异常情况下如何处理: Observe the mental state of the animal before the operation, if the animal is in poor mental state, the operation should be postponed; isolate the uterus with wet gauze during the operation to avoid touching the fetal mouse, if the uterus is inadvertently touched, it should be sutured in time to reduce the risk of bleeding and abortion. If hypothermia occurs intraoperatively and postoperatively, heating devices can be given appropriately; if vomiting occurs intraoperatively, the operation should be terminated and symptomatic treatment should be given to prevent asphyxia; if excessive bleeding is caused by inadvertent touching of blood vessels during the operation, blood vessels should be ligated to stop bleeding or saline blood should be supplemented appropriately, and close observation should be made after the operation. 给药方式及注意事项: A total of three doses were administered, 1 h before anesthesia, 24 h and 48 h after operation. MCC950 20 mg/Kg/dose was injected intraperitoneally while the control group was given the same dose of PBS at the same time. Care was taken to keep the head down and the tail up during intraperitoneal injection to avoid damage to internal organs.

观测指标(Indexes to observation):

The weight and length of thrombus were measured after sampling; the number of abortions and embryos in pregnant rats after MCC950 treatment were observed; serum IL-1 β was detected by ELISA; thrombus was observed by HE stained; the degree of thrombus fibrosis was observed by Masson staining; neovascularization was observed by immunohistochemistry; the expression of molecules related to cell scorching was detected by WB, PCR and IF.

安乐死及尸体处理方式(Euthanasia):

The rats were killed by isoflurane induced anesthesia followed by CO2 asphyxia. They were sealed in white transparent zipper bags and then sent to Laboratory Animal Center of Nantong University for centralized and harmless treatment.

主要申请人签名(Signature of Applicant):

徐艳华

联系电话(Telephone):

15506218978

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审查依据 (Inspection criteria)	该项目是否必须用实验动物进行实验，能否用计算机模拟、细胞培养等非生命方法替代动物或用低等动物替代高等动物进行实验(Does laboratory animal must be used in the project Could other methods such as computer simulation, cell cultivation or using the low-grade animal instead of the high-grade animal)? 该项目必须用实验动物进行实验，不能用计算机模拟、细胞培养等非生命方法替代动物或用低等动物替代高等动物进行实验。 表中所填申请人资格和所用动物的品种品系、质量等级、规格是否合适，能否通过改良设计方案或用高质量的动物来减少所用动物的数量(Are the qualification of applicant, species or strain, grade and specifications of animals suitable Could the quantity of animals be reduced by improving the study design or using high quality animals)? 申请人资格和所用动物的品种品系、质量等级、规格合适，不能通过改良设计方案或用高质量的动物来减少所用动物的数量。 能否通过改进实验方法、调整实验观测指标、改良处死动物的方法，来优化实验方案、善待动物(Could the study design and animal treatment be refined by ameliorating experimental method, adjusting observational index, executing animal method)? 实验方法、实验观测指标、处死动物的方法符合动物伦理要求，此实验不能通过改进实验方法、调整实验观测指标、改良处死动物的方法来优化实验方案、善待动物。			
审查结果 (是否同意申请人的实验方案) (Results of inspection)	课题负责人意见 (Principal Investigator):	同意 (Agree) ☒	不同意 (Disagree) ☐	签名 (Signature) 陈立东
	质量保障室主任意见 (Director of QC Department):	同意 (Agree) ☐	不同意 (Disagree) ☐	签名 (Signature) 董庆华
	实验动物伦理委员会意见 (Director of IACUC):	同意 (Agree) ☐	不同意 (Disagree) ☐	签名 (Signature) 王梅
备注(Supplement):		实验动物中心 印章 (Stamp)		