combinations in paediatric patients undergoing transcatheter ventricular septal defect (VSD) closure.

Methods 60 cases of selective choice to do interventional therapy in children with VSD were randomly divided into dexmedetomidine/propofol (D) group and ketamine/propofol (K) group. The D group received an infusion over 10 min of dexmedetomidine 1 μg/kg and propofol 2.0 mg/kg bolus for induction, then an infusion of dexmedetomidine 0.5 μg/kg/h and propofol 4 to 6 mg/kg/h for maintenance. In the K group, patients received the same dose of propofol and ketamine 1 mg/kg for induction and 0.5 mg/kg/h by infusion for maintenance. The procedure was performed using both fluoroscopy and transesophageal echocardiography. Haemodynamic data, respiratory rate, and oxygen saturation were recorded before and after induction, 1 and 5 min after femoral artery intubation, every 10 min thereafter during the procedure, and after femoral artery extubation by researchers blinded to the study drugs. Recovery time, the primary outcome, was evaluated by a modified Steward score; a score of>or=6 means that the patient is awake or responds to verbal stimuli, has purposeful motor activity, and coughs on command. The time to reach a modified Steward score of>or=6 was recorded. Patients were monitored for respiratory (changes in oxygen status) and haemodynamic adverse effects (heart rate changes, blood pressure changes) until the second hour in the intensive care unit after the operation was concluded.

Results Normal circumstances, surgical time, Systolic and diastolic blood pressure values and intraoperative $Sp0_2$ were not significantly different between groups in any study period ($p>0.05$), The recovery time was significantly longer in the K group than in the D group (11.5±3.5 vs 5.5±0.7 min; $p<0.01$). Heart rate values were significantly higher in the ketamine group at 5 min after femoral artery intubation (109.6±22.4 vs 85.3±10.1 beats/min), 10 min (112.8±20.2 vs 87.4±8.3 beats/min) and 30 min (110.0±19.4 vs 89.5±7.0 beats/min) perioperatively, and after femoral artery extubation (125.8±21.1 vs 91.2±9.5 beats/min) (all, $p<0.05$). In the D group, one patient experienced shivering; in the K group, two patients reported nausea. Neither respiratory depression nor severe hypotension (ie, >20% change over baseline or requiring intervention) was observed in any patient.

Conclusions In this small study, both dexmedetomidine and ketamine in combination with propofol were well tolerated in these paediatric patients who required VSD closure and no obvious side effects and complications. The recovery period was significantly shorter and a negligible effect on heart rate values in the D group.

Cardiovascular disease and surgical care

GW23-e1337 **SIXTY CASES OF CHILDREN WITH VENTRICULAR SEPTAL DEFECT INTERVENTIONAL THERAPY ANAESTHESIA**

doi:10.1136/heartjnl-2012-302920ae.1

Zhan Lifang Shanreai, Guo Rui, Zhou Aiqin, Zhou Aiqin. *First Affiliated Hospital of Gannan Medical College*

Objectives This study was performed to compare the effects and safety of dexmedetomidine/propofol and ketamine/propofol