CLINICAL INFORMATION

Patient Initials or Identifier Number. S.S

Relevant Clinical History and Physical Exam. A 62-year-old woman with obstructive hypertrophic cardiomyopathy was treated with β blocker, calcium channel antagonist, and cibenzoline. However, her shortness of breath and effort chest pain were not relieved.

Relevant Test Results Prior to Catheterization. Her electrocardiogram showed left ventricular hypertrophy. Echocardiography showed left ventricular hypertrophy with systolic anterior motion of the mitral valve and significant resting left ventricular outflow tract obstruction with pressure gradient of 142 mmHg.

Relevant Catheterization Findings. Coronary angiogram was normal. Left ventricular outflow tract pressure gradient was 153 mmHg and increased by post-extra-systolic potentiation.

INTERVENTIONAL MANAGEMENT

Procedural Step. After temporary pacing, we placed a 4-french pigtail catheter into the left ventricle via the right femoral artery for pressure monitoring. And then, a 5-french BUL3.5 guiding catheter (Autobarn, NIPRO corp.) was engaged at the left coronary artery ostium via the right radial artery. In combination with myocardial contrast echocardiography and coronary angiography, we selected the first septal artery and inserted a 1.5×6 mm over-the-wire type balloon (TREK, Abbott vascular Japan corp.). After the inflation of the balloon, we injected 1 ml absolute alcohol slowly and left it for 10 minutes. Despite the alcohol administrations to 2 septal arteries, the pressure gradient was not decreased and then we removed the balloon catheter to change the target artery. Unexpectedly, the pressure tracing revealed that the pressure gradient was minimal. The insertion of an over-the-wire balloon catheter in the 5-french guiding catheter made the arterial pressure dampened. We added more 1ml of alcohol and the final gradient decreased from 99 mmHg to 15 mmHg.



Figure 1. (Left panel) The target septal artery (arrow). (Right panel) The contrast echocardiography showed the target septum (arrow) was supplied by the first septal artery.



Figure 2. The pressure tracing of the guiding catheter (Ao) was dumped during the procedure.



Conclusions. Slender alcohol septal ablation using a 5-french guiding catheter in combination with contrast echocardiography is safe and feasible in the treatment of obstructive hypertrophic cardiomyopathy, however, we should pay attention to pressure dampening during the procedure.

TCTAP C-213

Alcohol Ablation of Interventricular Septum Under Ultrasound with Contrast Guidance for Patient with Hypertrophic Obstructive Cardiomyopathy



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CLINICAL INFORMATION Patient Initials or Identifier Number. P

Relevant Clinical History and Physical Exam. 57 y.o. patient complaining of shortness of breath, fatigue, dizziness, moderate chest pain and heaviness in chest attended o the hospital in December 2016.

Anamnesmorbi: HCM was diagnosed previously in 2013. During 2016 getting worse - syncope and lowered tolerance to physical exercise.

Physical examination is remarkable for a paradoxical split of second heart sound and systolic ejection crescendo-decrescendo murmur. **Relevant Test Results Prior to Catheterization.** TTE revealed:

1. Asymmetric HOCM with thickening of basal (19 mm) and middle

(13.6 mm) interventricular septum. Peak systolic gradient at the LVOT was 96 mmHg at rest and 114 mmHg after 10 squats

2. I-II grade of mitral regurgitation.

3. Abnormal systolic anterior leaflet motion of the mitral valve. **Relevant Catheterization Findings.** Coronarography revealed intact coronary arteries and two equipollent septal branches and LSX originating from RCA.

INTERVENTIONAL MANAGEMENT

Procedural Step. Temporary pacemaker installed to RV. An invasive LVOT gradient was 90 mg Hg at rest and 110 mmHg after Valsalva. Coronarography remarkable for two equipollent septal branches, TTE

with intracoronary US contrast enhancement showed that II septal branch is responsible for the most interventricular septum. 1.5 ml 96% ethanol injected via OTW balloon to II SB. Balloon deflated 10 min after injection. Same was done with SB I. Coronarography demonstrated intact LAD and occluded I, II septal branches. Final LV outflow gradient was 11 by TTE and 13 mmHg invasive measurements. At 3 and 12 months, follow-up LVOT gradient was 11 mmHg.



Conclusions. Alcohol septal ablationis a safe and effective method of treatment for HOCM and considered as an alternative for myomectomy. This procedure allows reducing LVOT gradient. Long-term results require further investigations.

OTHERS (TCTAP C-214)

TCTAP C-214 The Ball Outside the Heart Huai-Wen Liang¹ ¹E-Da Hospital, Taiwan



CLINICAL INFORMATION Patient Initials or Identifier Number. Mr. H.

Relevant Clinical History and Physical Exam. Mr. H., a 67-year-old man, without systemic disease, was found a mass lesion protruding from the cardiac silhouette on chest X-ray incidentally. He has denied chest tightness, exertional dyspnea, nor palpitation, etc. Physical examination showed a grade 3 continuous murmur at the left parasternal border.

Relevant Test Results Prior to Catheterization. Follow-up CXR during 2012-2017 showed progressively enlarged aneurysm.

Chest CT showed a giant aneurysm, with maximum diameter of 4cm, adjacent to the pulmonary trunk. Doppler echocardiography revealed blood flow signals within the aneurysm. The 640-sliceCT showed the giant aneurysm was arising from the right coronary artery-pulmonary artery fistula, and another fistula from the left anterior descending artery into pulmonary artery.

