

Answering Reviewers

Dear reviewers,

Thank you for your comments concerning our manuscript entitled “Liver transplantation for severe portopulmonary hypertension: Case report and literature review”. Those comments are all valuable and helpful for improving our paper and thank you again for providing us with relevant articles. The responds to your comments are as flowing:

1. “there have been several important reported uses of Sildenafil Monotherapy, Combination therapy, phosphodiesterase type 5 inhibitor and prostaglandin E1 to Treat Portopulmonary Hypertension Before Liver Transplant that the investigators should additionally discuss”

We read the relevant literature carefully and revised the discussion of the manuscript deeply. The most obvious is that a comparison of different drug regimens was added. For severe PoPH, oral monotherapy literally worked, but it may cost a lot of more time, and increase mortality during waiting period. Two oral drugs combination may relative shortening of treatment time, but Combination with prostacyclins usually can get better results in a shorter time.

2. “A table summarizing the management perioperative an intraopertative (PMID: 30762664 and PMID: 29417353) should also be done.”

The table about perioperative managements and pulmonary pressure changes was made and added to the manuscript(and the last page of this letter). But the intraopertative managements were simple and we have summarizing the managements and pressure changes in the form of figures(figure1). The figure probably could show the trend of pressure changes vividly.

3. “Minor point: It should be “dyn•s/cm⁵”, not “dyn/s/cm⁵””.

We are very sorry for that Unit error. We have fixed all of them and proofread the paper to eliminate all such errors.

SUMMARY OF CHANGES

- 1) Deeply revised the discussion section, a comparison of different drug regimens was added. Remove some of the same content as before.
- 2) Add a Table about perioperative managements as below.
- 3) Replace the unit of PVR to dyn•s/cm⁵.
- 4) Case presentation format modified as the require of editor.
- 5) Language polishing

Table 1. Perioperative managements and pulmonary pressure changes.

	Before operation				After operation				
	6mon	4mon	1mon		1mon	3mon	6mon	12mon	13mon
Remodulin* (ng/kg/min)	0.8	8.3	16.5	Operation	14.4	8.3	6.2	2.0 Withdraw	none
Combined drugs	Furosemide 20mg qd Spironolactone 20mg bid	Tadalafil 30 mg qd	Tadalafil 30 mg qd		none	none	none	none	none
sPAP (mmHg)	81 (133 by echocardiography)	79	65		41.1	37.1	44.5	39.2	37.4
mPAP (mmHg)	50	46	37		unavailable**				
PAWP (mmHg)	20	9	21						
PVR (dyn•s/cm ⁵)	460	470	175						

sPAP: systolic pulmonary artery pressure;

mPAP: mean pulmonary artery pressure;

PAWP: pulmonary artery wedge pressure

PVR: pulmonary vascular resistance;

qd: once a day;

bid: twice a day

* Before operation, the dose of Remodulin increased by 0.4125ng/kg/min every two days if there are no unbearable side effects and reduced by 2ng/kg/min per month after operation if pulmonary artery pressure is decreasing gradually.

**Since right heart catheter is an invasive procedure, we usually use transthoracic echocardiography to assess pulmonary artery pressure changes after transplantation. So, the mPAP, PAWP,PVR were unavailable.