



Late Sequels after Cavopulmonary Anastomosis in Complex Congenital Heart Disease: Thailand Experience



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Rationale

The survival rate of children with congenital heart disease (CHD) has been improved. Cavopulmonary anastomosis (CPA) become a standard procedure in patients particularly with single ventricle physiology. These children have been survived with the sequels impact of CPA.

Objective

The purpose of study is to evaluate late complications in these patients.

Method

Patients underwent CPA at least 5 years, regularly followed at our institute, were recruited. Medical records had been reviewed. Clinical parameters, Laboratory test, cardiovascular parameter and hepatic evaluation had been obtained during Jan-Oct 2017.

Results

Table 1: Demographic data of patients

Parameter	N=30
Gender, male:female	2:1
Age (yr.), mean (range)	14.80 (7-33)
Body mass (BMI) (range)	1.32 (0.8-1.94)
NYCA classification I-II	28 (93.33%)
Dextrocardia	9 (30.00%)
Abdominal inversus/ambiguous	9 (30.00%)
Dominant RV morphology	4 (13.30%)
Asplenia/polysplenia	5 (16.67%)

Table 2: Stage operation

Parameter	N=30
Balloon atrial septostomy	2 (6.70%)
Stage I operation	
Systemic to PA shunt	21(70.00%)
PA banding	4 (13.30%)
Stage II operation	
Superior Glenn (SVC to PA)	21 (70.00%)
Inferior Glenn (IVC to PA)	2 (6.70%)
Kawashima	1 (3.33%)
Stage III operation	
Complete Fontan	24 (80.00%)
Palliative Inferior Glenn	6 (20.00%)
Fenestration in operation	23 (76.67%)
Present Fenestration	16 (53.33%)
Fenestration device closure	12 (40.00%)

Fig. 1: Principle diagnosis of complex CHD

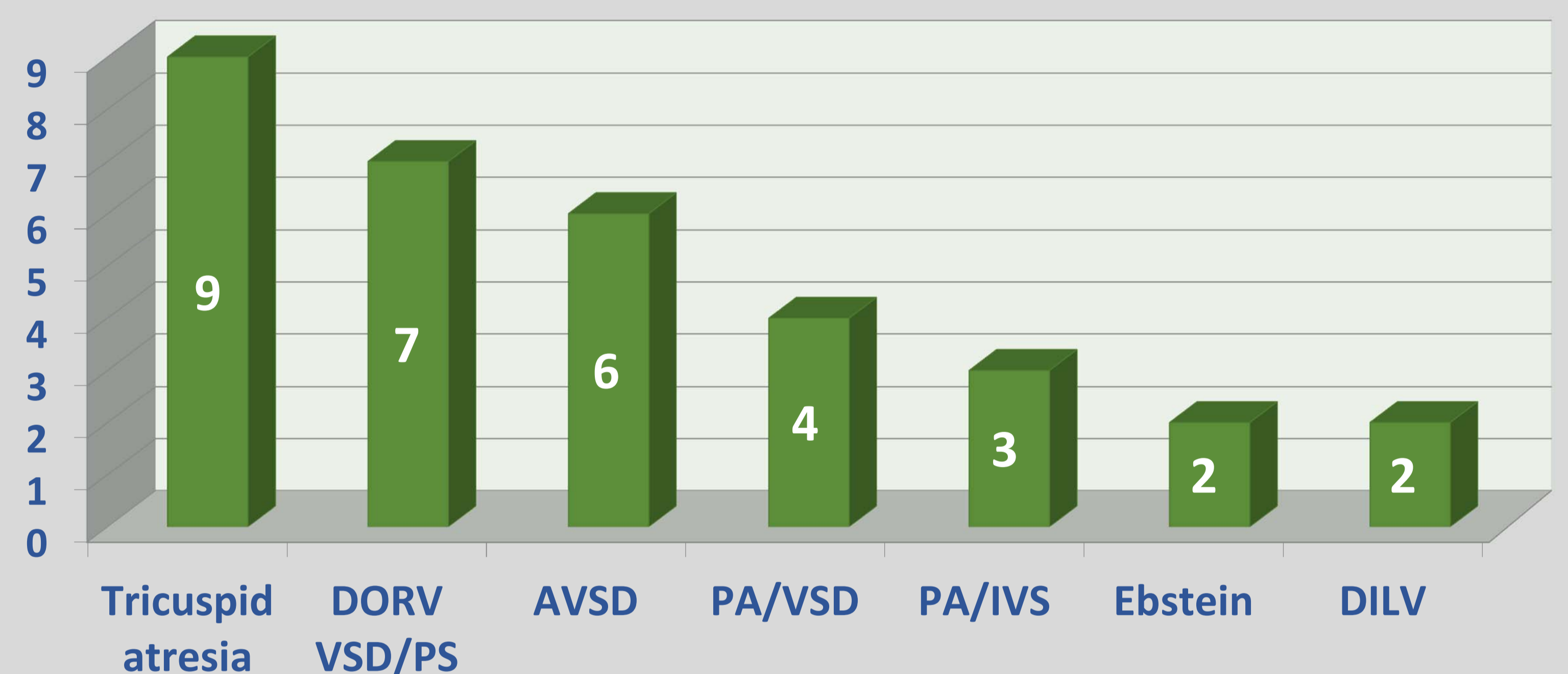


Fig. 2: Late complication after CPA

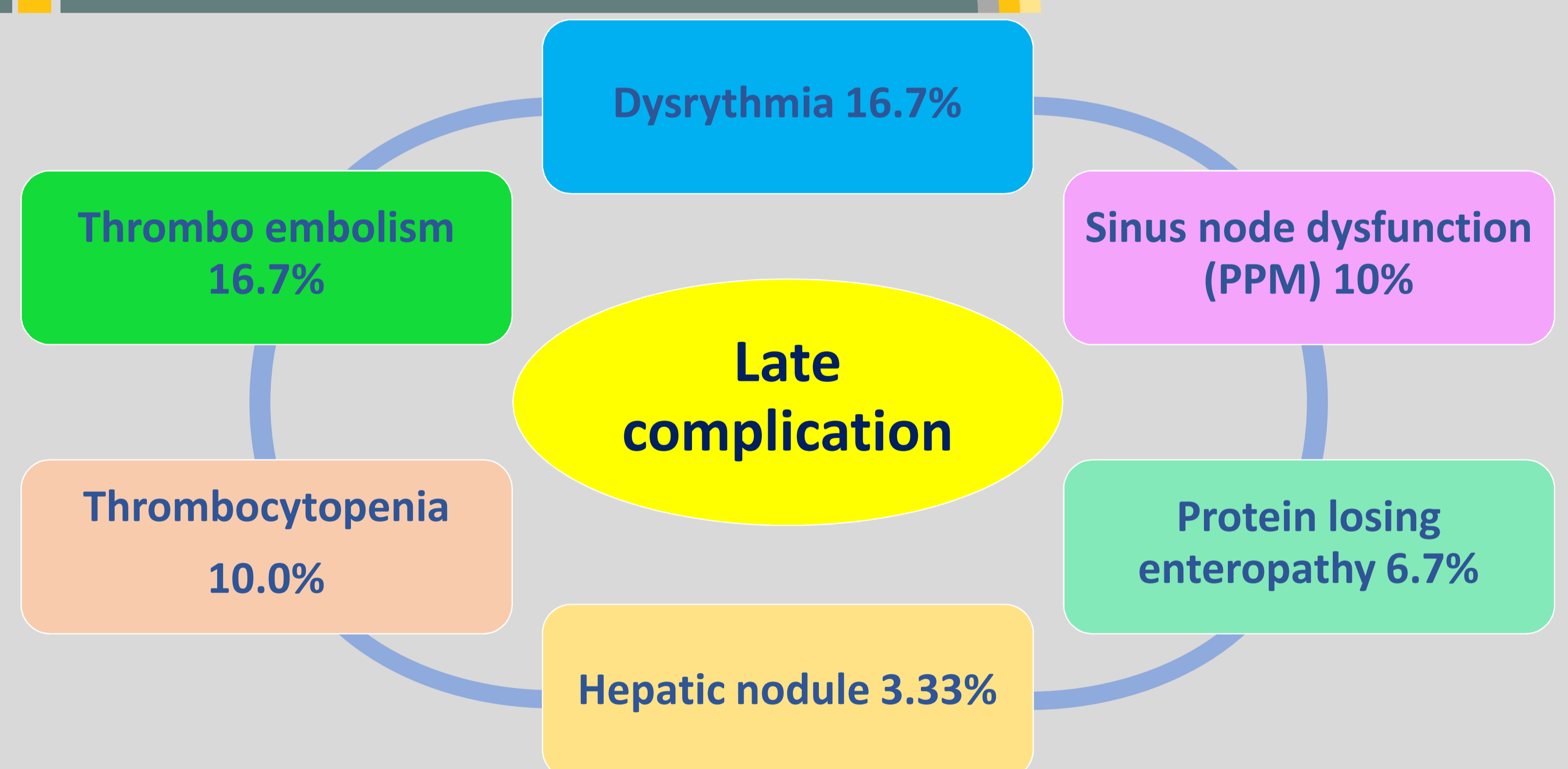
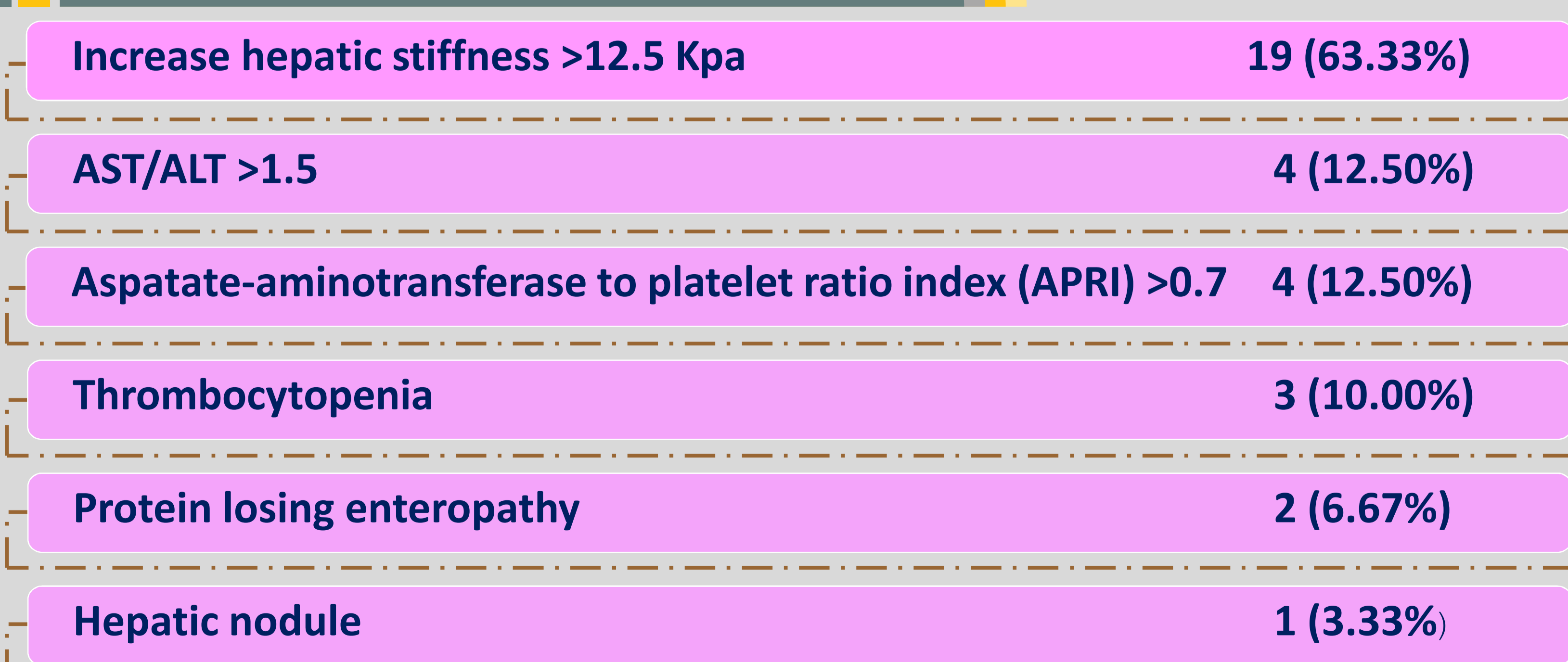


Fig 3: Hepatic sequels after CPA



Conclusion

Long term follow up of Fontan and inferior-Glenn patients revealed majority were in functional class I and II. However, major concerns regarding systemic venous hypertension and hepatic squeals. Further regularly systematic follow-up is required evaluations for early hepatic fibrosis detection and management.

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