**EFFECT OF FENESTRATION ON EARLY POSTOPERATIVE OUTCOME IN PATIENTS WITH DIFFERENT RISK LEVEL UNDERGOING EXTRACARDIAC FONTAN**

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*Objectives*: This study assessed the effect of fenestraion on extracardiac Fontan patients with different risk level at the early postoperation to identify the candidates to perform the fenestration.

*Background*: Although fenestration was used to improve the postoperative course of Fontan patients, the effect of fenestration on the extracardiac Fontan seemed controversial especially at the early postoperation.

*Methods*: 183 patients having an extracardiac Fontan operation were retrospectively selected for this study. We separated the patients into low risk group (93patients) and high risk group (90 patients) according to the risk factors recognized by the previous studies. The nonfenestrated patients compared with fenestrated patients in each group with respect to the perioperative data.

*Results*: In both groups there was no meaningful difference of preoperative and operative data between the nonfenestrated patients and fenestrated patients. The postoperative blood oxygen saturation of fenestrated patients was significantly lower in each group. In the high risk group the chest tube volume (862.0 ml vs 1426.5 ml, p=0.068) and duration (8 days vs 11.5 days, p=0.088) of fenestrated patients were lower than that of nonfenestrated patients. While there was no significant difference between the nonfenestrated patients and fenestrated patients in the low risk group about the chest tube volume and duration. The morbidity and mortality of nonfenestrated patients and fenestrated patients were similar in both groups.

*Conclusions*: Fenestration could lead a better postopearative outcomes about the chest tube volume and duration for the high risk patients. We suggested to perform fenestration for the high risk patients.